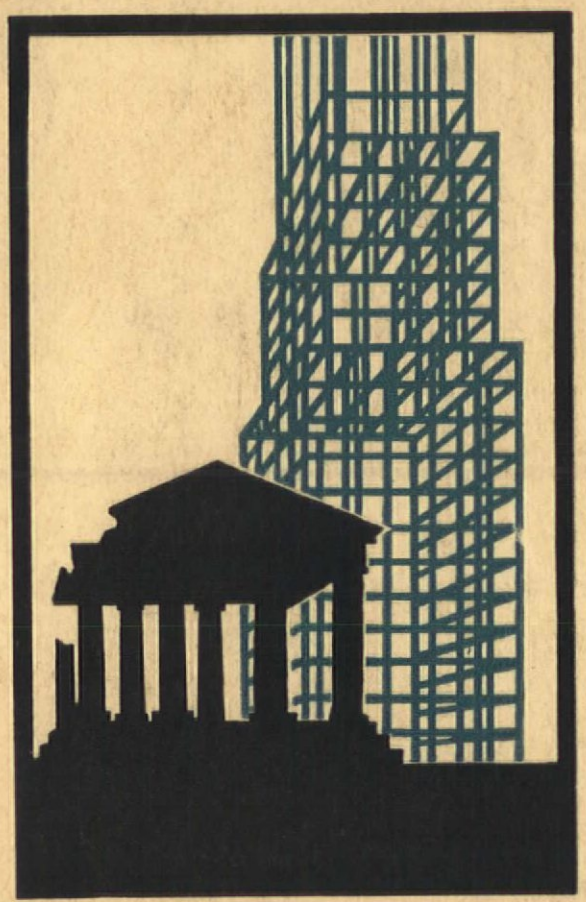
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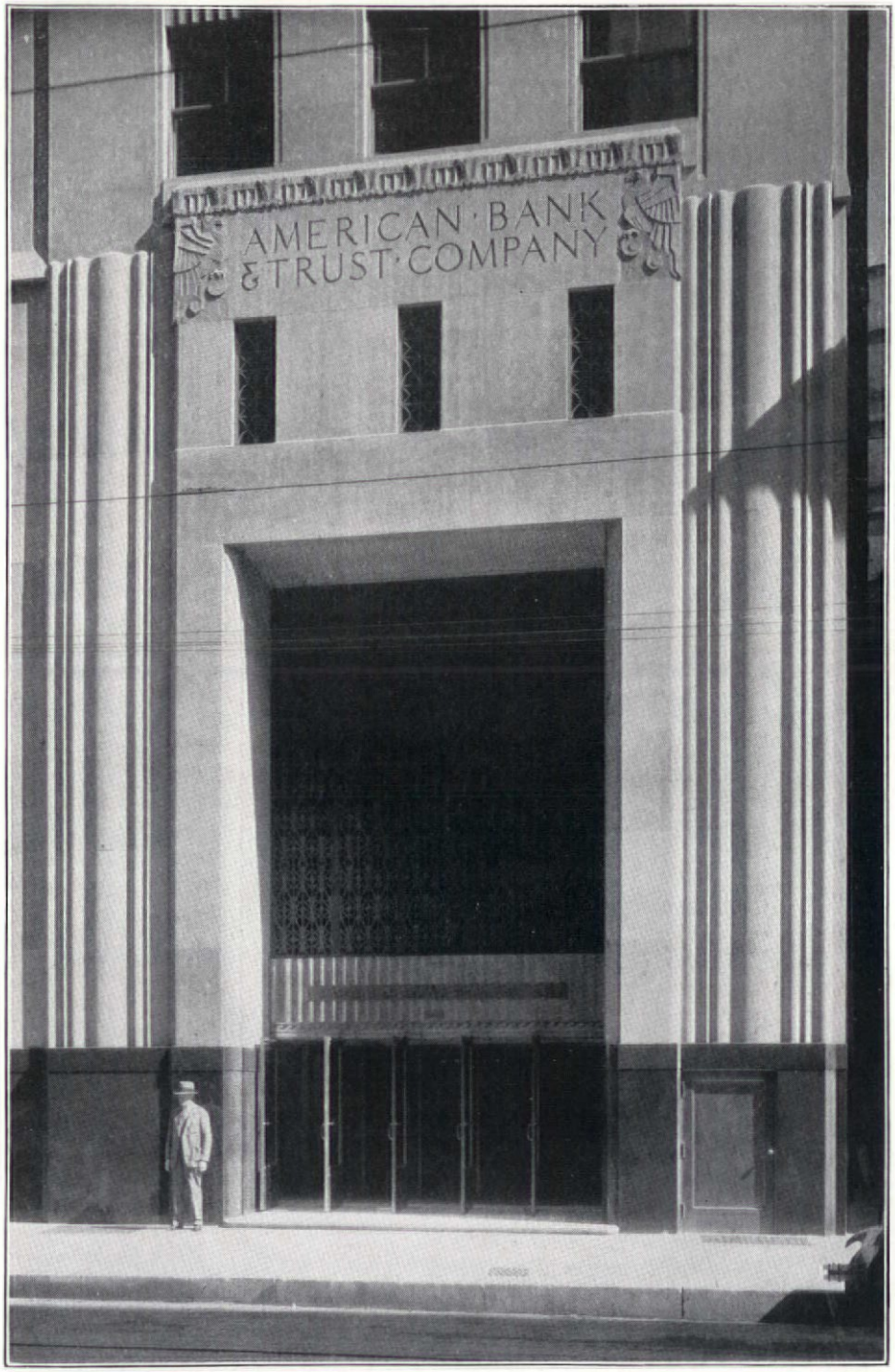
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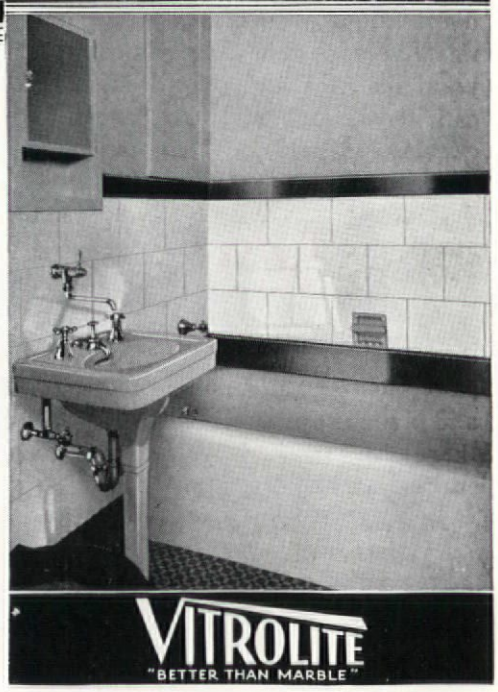
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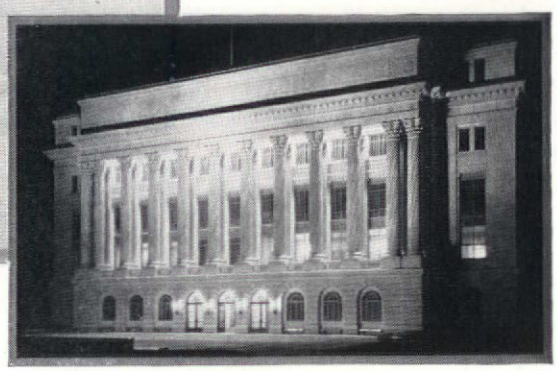
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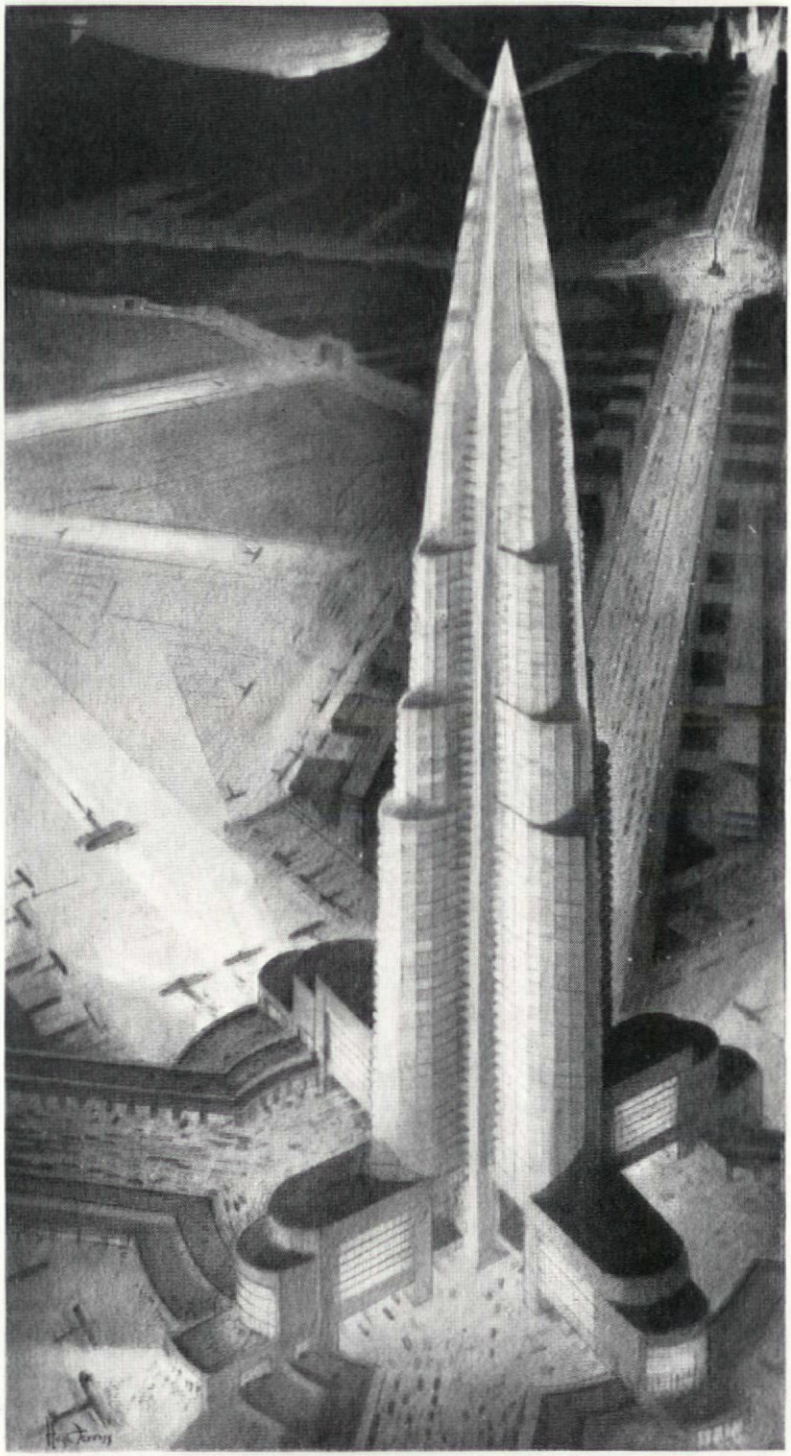
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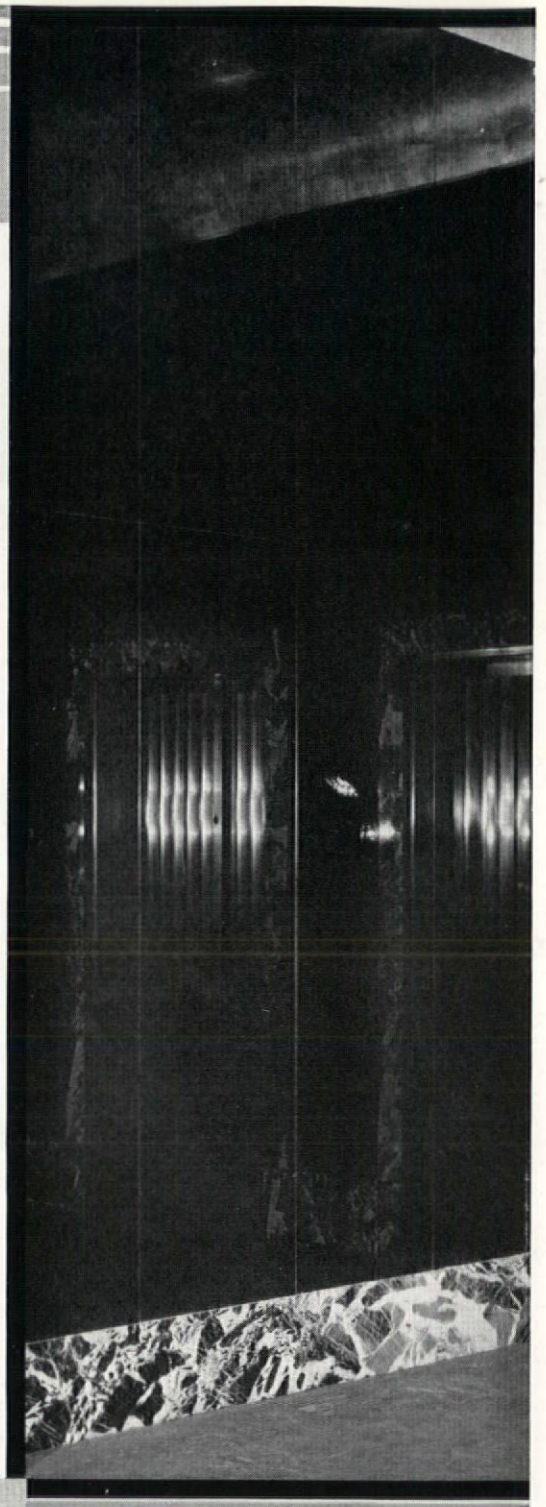
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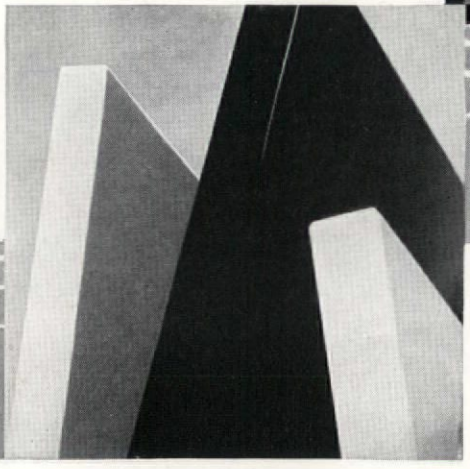
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A beautiful setting for elevator entrances — Black Carrara Glass in Butterick Building, New York. Architect . . Russell G. Cory.

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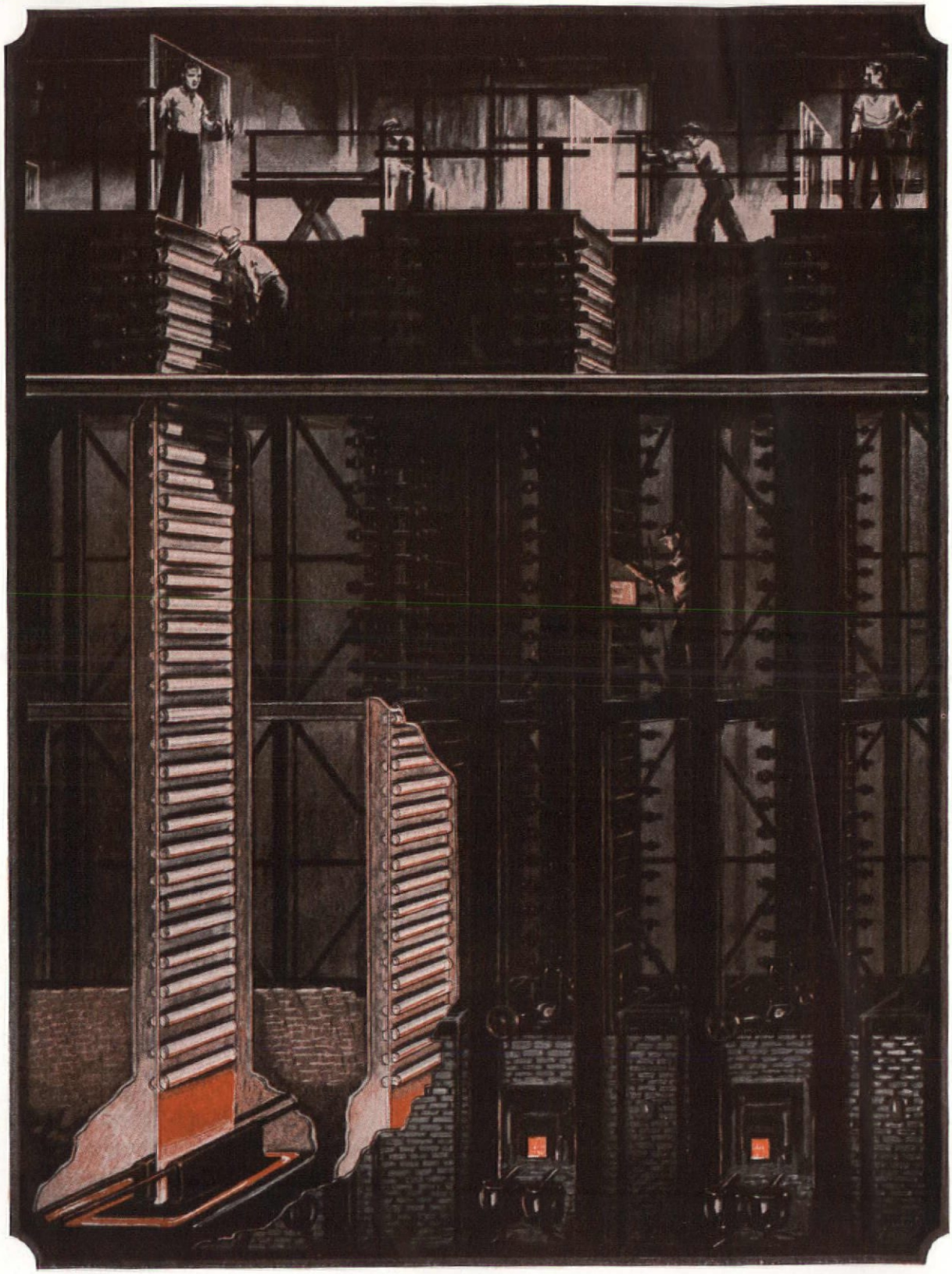
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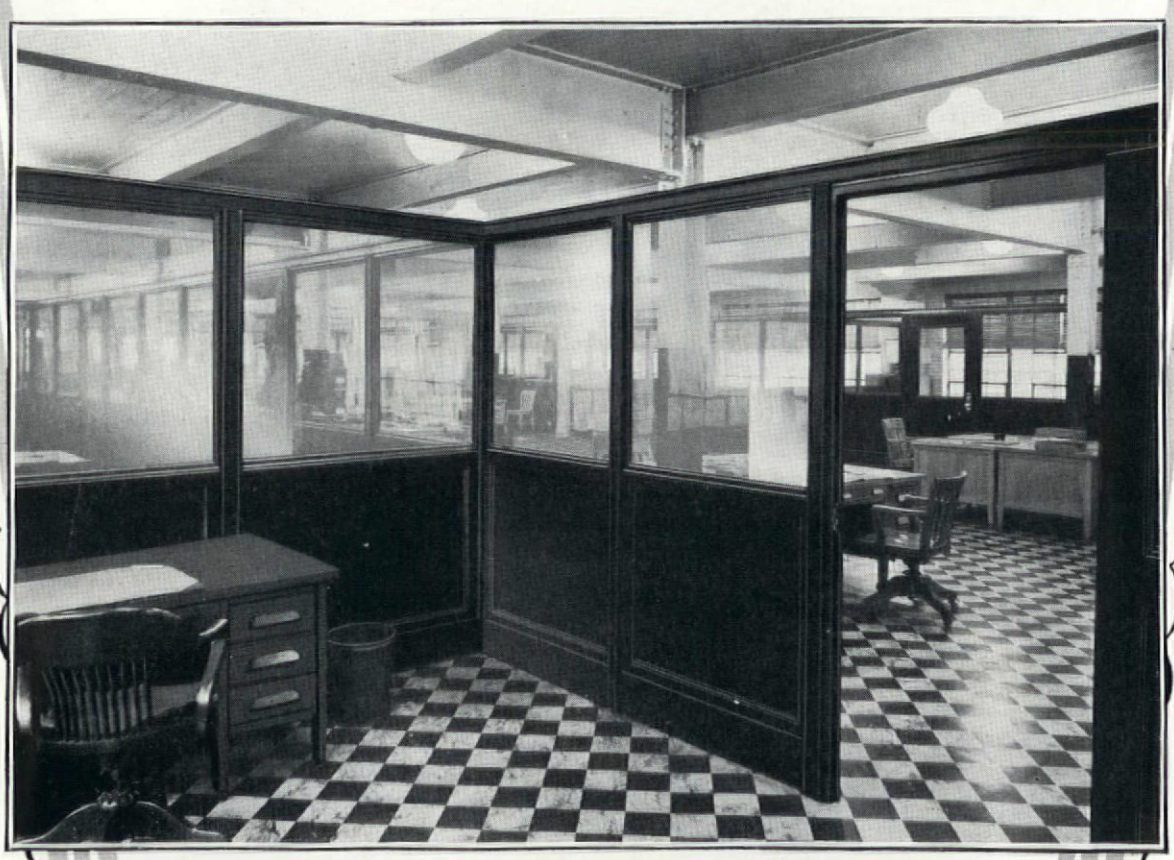
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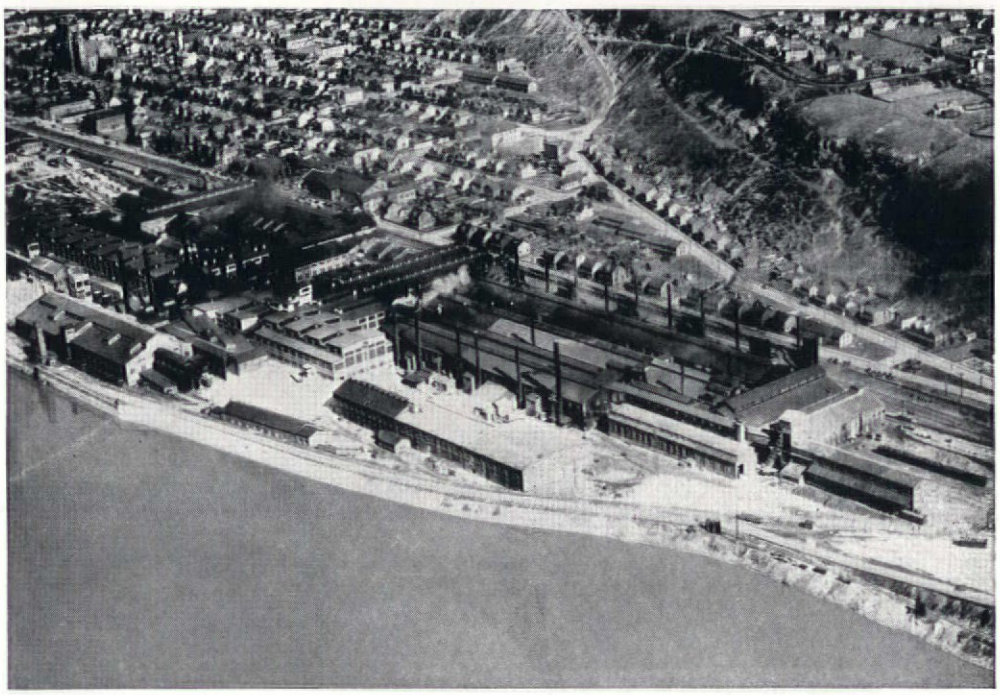
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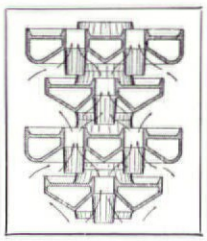
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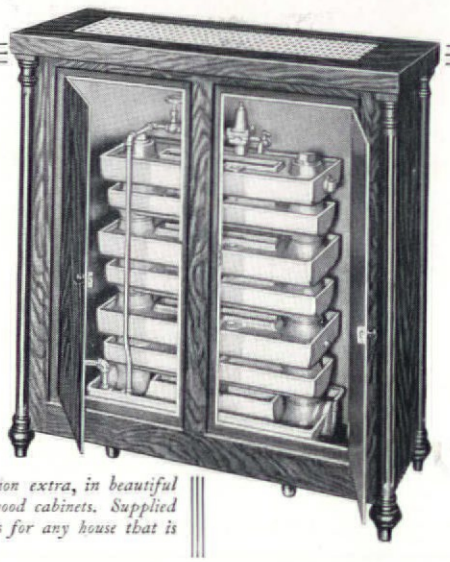
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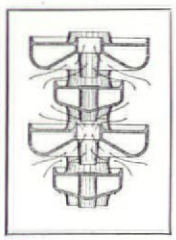
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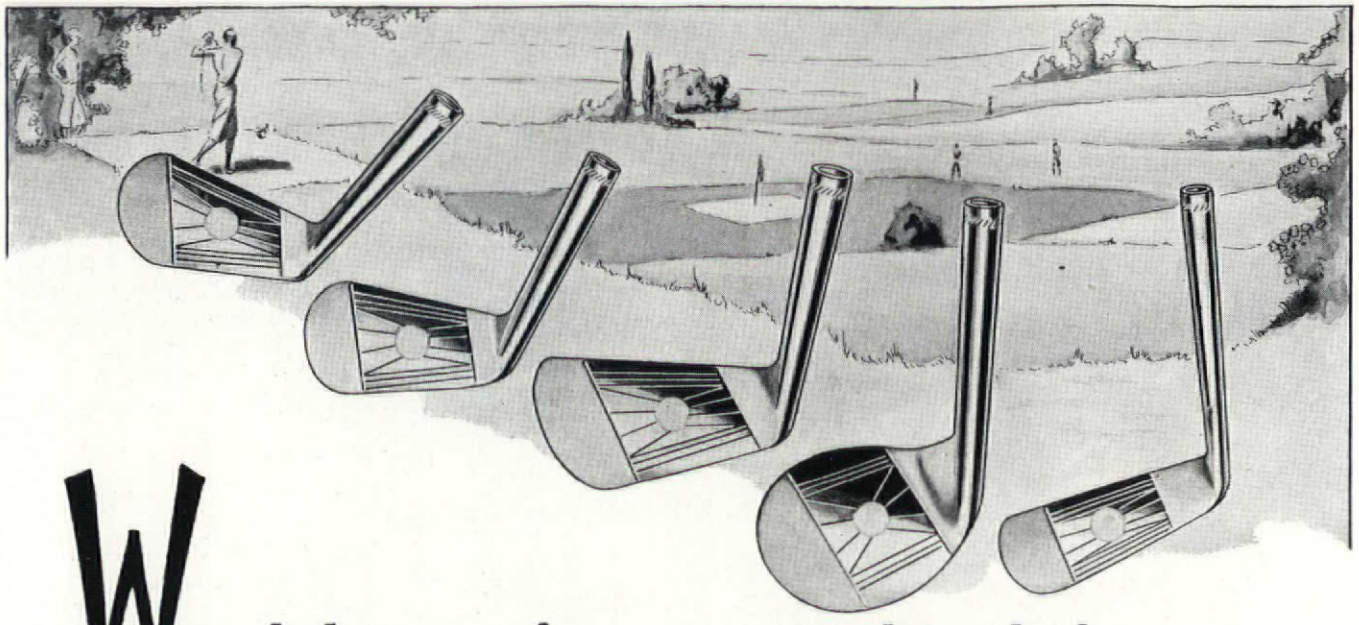
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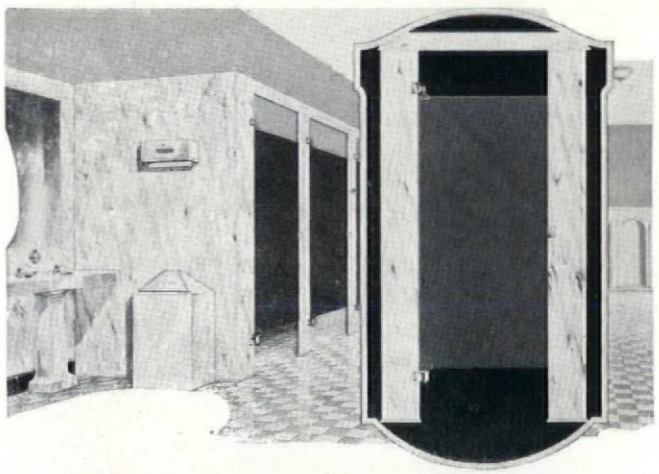
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METALUNIT
STALL DOOR AND HARDWARE

THE head of a golf club all by itself is as useless as a door without hinges or latch. Except when you break a shaft you never buy one part of a golf club without the other; when you buy a new club it is always complete, a single UNIT to accomplish a definite purpose. (Weis METALUNITS offer you the same simple choice; one specification covers doors and hardware, fitted to work together.) You save time and bother, the contractor saves time and bother and the owner saves money and gets unsurpassed quality in his building.

When METALUNITS are specified, stall doors and hardware come together and the door is already prepared for the application of the hardware.

New treatment of line, color and quality and new design, are made possible with Weis METALUNITS. Let us tell you the complete story.

THE HENRY WEIS MFG. COMPANY, INC.,
Elkhart, Indiana.

Turn now to the six-page insert in color in Sweet's, 1930 edition, following page B2388, for full information concerning Metalunits.



OUR CONTRIBUTION TO THE ART OF HEATING AND VENTILATION

The Herman Nelson Wedge Core Radiator is an exclusive feature of all Herman Nelson Heating and Ventilating Products and accounts for their satisfactory performance. + + + +

THE HERMAN NELSON CORPORATION MOLINE ILLINOIS



BEHIND THAT GRILLE IN THE WALL

To those of your clients who still consider radiators "a problem," the facts you can give them about the Herman Nelson Invisible Radiator will be a pleasant surprise.

Think what it will mean, for example, to say to them, "Here is a radiator so compact and so sturdy that it can be safely installed within the wall—out of view and out of the way."

Think how they will value your recommendation of a radiator that permits them to arrange their furniture and hang their draperies precisely as they choose; to carry out completely harmonious color schemes.

The Herman Nelson Invisible Radiator comes enclosed in a sturdy steel case which fits in any standard wall or partition. For multi-story buildings, where access to control valves is required, a special removable panel is provided. The radiator has no joints of any kind to leak and fail—no parts that can rust or get out of order.

If you are planning a residence or any building that will have a steam, hot water, vapor or vacuum heating system, you will insure your client's satisfaction by specifying Herman Nelson Invisible Radiators. Do you have our catalogue? A request will bring it to you.

THE HERMAN NELSON CORPORATION, *Moline, Ill.

There's a radiator that says... "This home is modern"

© 1930 T. H. N. Corp.

HERMAN NELSON *Invisible* RADIATOR

BELFAST, ME.
BOSTON
SPRINGFIELD, MASS.
PROVIDENCE, R. I.
NEW YORK CITY
SYRACUSE
ALBANY
BUFFALO
PHILADELPHIA
SCRANTON

HARRISBURG
PITTSBURGH
JOHNSTOWN, PA.
WASHINGTON, D. C.
CHARLOTTE, N. C.
GRAND RAPIDS
SAGINAW, MICH.
FLINT, MICH.
DETROIT

CLEVELAND
CINCINNATI
TOLEDO
LOUISVILLE
INDIANAPOLIS
CHICAGO
PEORIA, ILL.
DES MOINES
MILWAUKEE

GREEN BAY
MINNEAPOLIS
DULUTH
ST. LOUIS
BIRMINGHAM
ATLANTA
NEW ORLEANS
MEMPHIS
DALLAS

OMAHA
EMPORIA, KAN.
KANSAS CITY
TULSA, OKLA.
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VANCOUVER
TORONTO
WINNIPEG, MAN.
CALGARY
LONDON
OSLO
MELBOURNE
TOKIO, OSAKA

*Makers of the *Herman Nelson Invisible Radiator*, for residences, apartments, hotels, offices and monumental structures—the *Univent*, for the ventilation of schools, offices, churches and all buildings having an acute ventilating problem—the *Herman Nelson hiJet Heater*, for economical distribution of heat in factories, mills, garages, warehouses, and smaller buildings.

This white cedar imparts beauty and dignity to every interior



This ceiling is an excellent example of the precision of Port Orford Cedar woodworking, and of its extreme smoothness for delicate and elaborate decoration. Residence of H. L. Thompson, Pasadena, California. Gordon B. Kaufmann, Architect

THE interior of a stately home, an English cottage or some magnificent public building assumes lasting dignity and beauty when Port Orford Cedar is selected for all interior trim.

Satin-smooth, this fine wood enamels to a beautiful and enduring porcelain-like finish. No trace of grain shows through. Never crinkles or blisters. Contains no pitch or rosin.

Trim, beams and panels of this cream-white cedar readily assume true, even, warm stains. Light and pliable, Port Orford Cedar works easily—never splinters and checks—holds nails with exceptional tenacity. Is free from pitch, rosin and knots. For special designs, it machines easily and with sharp, clean-cut edges. Port Orford Cedar's unusual resistance to corrosive agents makes it an outstanding wood for entrances, porch columns, garden furniture, storage batteries; bulkheading, decking, tunnel lining, boat building. Non-warping, it is ideal for Venetian Blinds, built-ins, etc.

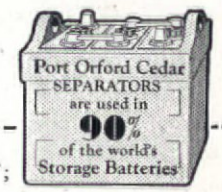
Your local lumber dealer and millwork house has Port Orford Cedar lumber and plywood or can obtain standard grades and sizes promptly.

The coupon will bring you complete information about this fine wood. Mail it today.

PORT ORFORD CEDAR PRODUCTS COMPANY, Marshfield, Oregon

PORT ORFORD CEDAR

The Aristocrat of Woods



DANT & RUSSELL, INC., *Port Orford Cedar Sales Agents*, Dept. A. R. 830, Porter Building, Portland, Oregon
I am interested in Port Orford Cedar. Please send me free, your book "Port Orford Cedar—Its Properties and Uses"; also "Fine Interiors with Port Orford Cedar" by Wade Pipes, A. I. A.

Name_____

Address_____



Now!

BLOX-ON-END FLOORS FOR NEW YORK CITY SCHOOLS

The two big gymnasiums (Boys' & Girls') in Seward Park School, illustrated above, have been floored with BLOX-ON-END.

Dr. A. K. Aldinger and Dr. A. P. Way, Department of Health Education, New York City Board of Education. W. C. Martin, Architect.

IN FINER SCHOOLS EVERYWHERE

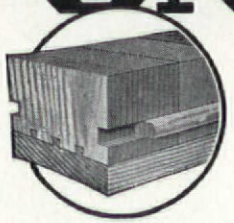
Bloxonend is the one flooring material that combines beauty, long life, safety and utility. Its end-grain surface stays smooth and is resilient, fast and comfortable under foot. No slivers or splinters.

Bloxonend Flooring is widely used in handball and squash courts. Nearly all prominent school architects specify it for gymnasiums and school shops. Write for specifications.

CARTER BLOXONEND FLOORING COMPANY, Kansas City, Mo.

Branch Offices in Principal Cities—See Sweet's

BLOX-ON-END FLOORING



Bloxonend is made of Southern Pine with the tough end grain up. It comes in 8 ft. lengths with the blocks dovetailed endwise onto baseboards

Lays Smooth
Stays Smooth

Bloxonend is used by leading industrials for floors subjected to severe usage.

Specify the Limit!

Any and all properties you may demand are possessed 100% by Sheldon's Slates

A Sheldon Slate roof is 100% fireproof.

Their color range covers all requirements.

In beauty, no roof can equal it.

Its permanence surpasses that of the building.

As to protection, that's also 100%.

Also adaptable to underfoot and many other uses.



Makes possible complete harmony with building and its setting, in pattern and texture as well as in color.

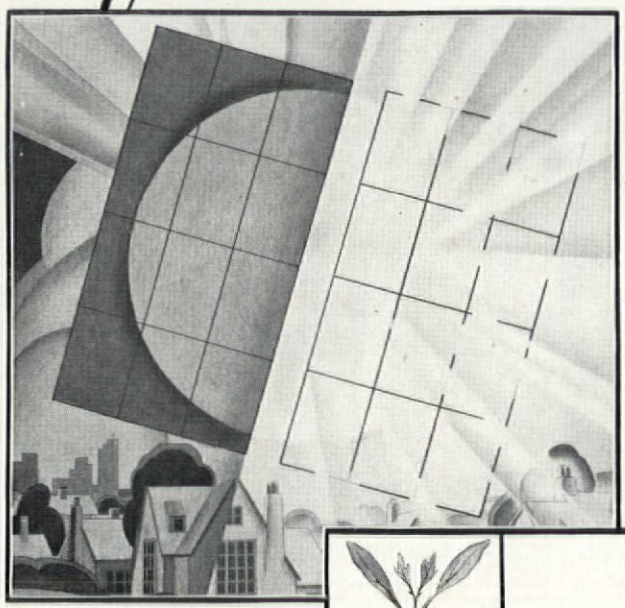
Deliveries on time assured, because all come from quarries we own and control.

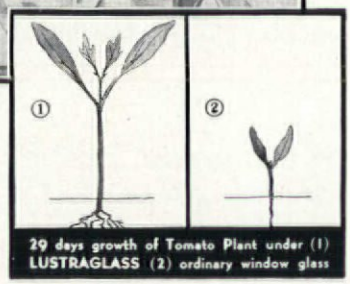
F.C. SHELDON SLATE CO.

GENERAL OFFICES · GRANVILLE · N.Y.

· BRANCHES IN PRINCIPAL CITIES ·

Why BLOT *out the* BEST *of the* SUNLIGHT ?





29 days growth of Tomato Plant under (1) LUSTRAGLASS (2) ordinary window glass

LUSTRAGLASS
FLAT-DRAWN
. COSTS NO MORE

NO longer can scientists say that all window glass keeps out those vital ultra-violet rays of sunlight. LUSTRAGLASS transmits a substantial amount of the shorter ultra-violet rays of sunlight of a wave length of 313 mu.*, yet it costs no more than ordinary window glass.

LUSTRAGLASS is the "whitest" of all glass made for windows. That greenish color characteristic of window glass has been almost entirely eliminated. Specify LUSTRAGLASS instead of window glass for every building in which human beings live, or work, or play. It is a flatter, clearer, more lustrous product, superior in every respect.

**Write for LUSTRAGLASS BOOKLET A-430 and Specification sheet showing complete table of transmission.*



Look for this label on every light of genuine Lustraglass

AMERICAN
WINDOW · GLASS · COMPANY

Makers of Quality Window Glass, Armor-Lite Scatter-Proof and Bullet-Proof Glass, 16 oz. Picture Glass, Photographic Dry Plate Glass, 3/16" and 7/32" Crystal Sheet, Ground and Chipped Glass, Improved Quartz-Lite and Bulb Edge Glass.

FARMERS BANK BUILDING · · · · PITTSBURGH, PENNA.

3044

NAILING *into Concrete!*



Ebenezer Community Building, Chicago, showing how slate is nailed directly to the roof-deck of Federal Nailing Concrete Slabs. Archt., Andrew E. Norman.

Slate, ornamental tile, copper or other covering may be nailed directly and firmly to this permanent, fireproof, no-maintenance roof-deck. There are no wood nailing strips to rot out.

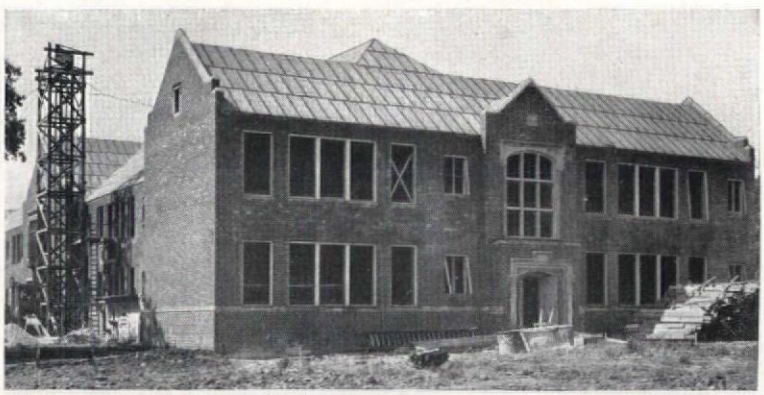
Of Haydite aggregate, Featherweight Nailing Concrete slabs also bring the further advantages of light weight and insulating qualities—offering roof value, without equal today.

Daily, more architects, engineers and contractors are taking advantage of this advanced roof construction—for prominent public buildings of all kinds. The list below is typical. Send for complete "Catalog and Roof Standards".

Featherweight Nailing CONCRETE ROOF SLABS

Some of the Many Modern Buildings On Which These Slabs Are Used

University of Chicago Chapel, Eckhart Hall, Oriental Building—De Vilbiss High School, Toledo—St. Aloysius Church, Detroit—Jackson County, Michigan Sanitarium—Minneapolis Water Works—Shedd Aquarium, Chicago—Marshall, Mich. High School—Illinois Reformatory, Dwight—Parker Jr. High School, Chicago—Haish Memorial Library, De Kalb, Ill.—Lincoln National Bank, Ft. Wayne.



Harrison School, Cedar Rapids, Iowa. The nailing slabs are ready for the roofing felt and ornamental tile or slate. Archt., H. E. Hunter.

Made, Laid and Guaranteed by

FEDERAL CEMENT TILE COMPANY

608 South Dearborn Street Chicago

FOR OVER A QUARTER CENTURY



Shreve, Lamb & Harmon
Architects

H. G. Balcom
Structural Engineer

Post & McCord
Structural Steel Contractors

American Bridge Company
Fabricators

85th floor Please!

Truly a triumph of Structural Steel—the 85-story Empire State Building, now under construction in New York City! Carnegie Beams form the steel framework of this modern Colossus. The many unique advantages of these sections, responsible for their wide popularity, merit the investigation of those interested in efficient steel construction—whether for a bridge, a factory, or a building in which you ride to the eighty-fifth or walk up to the second.

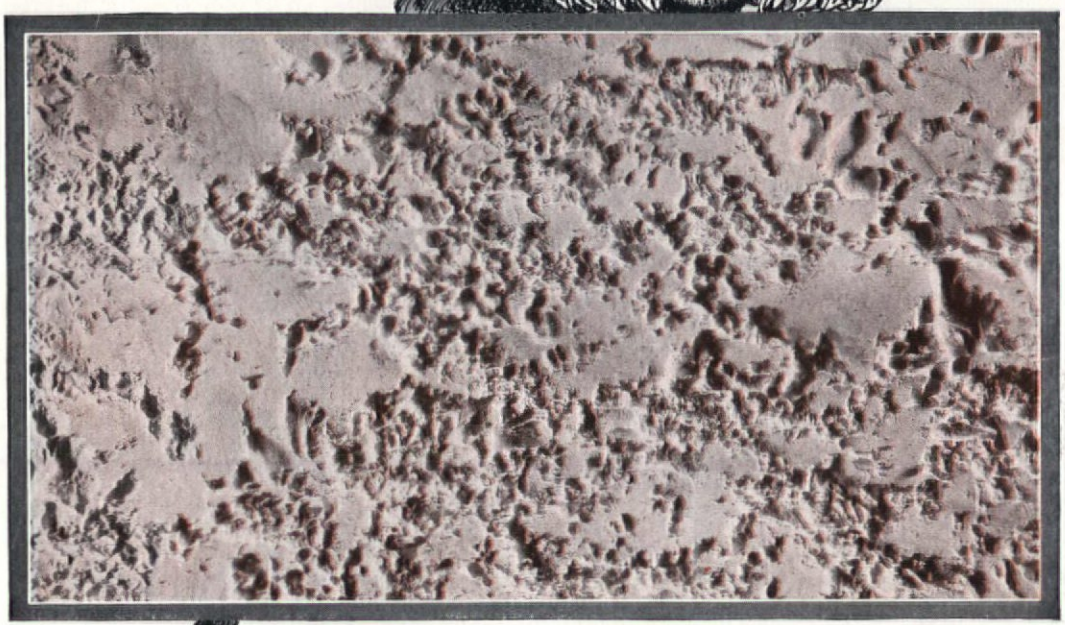
CARNEGIE STEEL COMPANY · PITTSBURGH, PA.
Subsidiary of United States Steel Corporation

82

CARNEGIE BEAMS

"Spreads like warm butter"





Tiger FOOTPRINTS proclaim quality

SERPENTINE STIPPLE

Another Attractive Tiger "Footprint"

An exceptionally fine finish for the walls and ceilings of Banks, Theatres, Churches, Show-windows or massive rooms. Practically no limit to the color combinations which can be used. Heavy sponge treatment—flattened.

When encountered on the trail of American Architecture, Tiger "Footprints" (ceiling and wall finishes and textures) are accorded prompt and favorable recognition. Always accepted as unquestioned marks of distinction, the unique charm of their individuality forcefully proclaims a quality structure throughout. These artistic Tiger creations are enjoying universal popularity, paying glowing tribute to their creators, the craftsmanship responsible for their being and the unusual working qualities of Tiger Finishing Lime.

The KELLEY ISLAND LIME & TRANSPORT COMPANY

"World's Largest Producer of Lime"

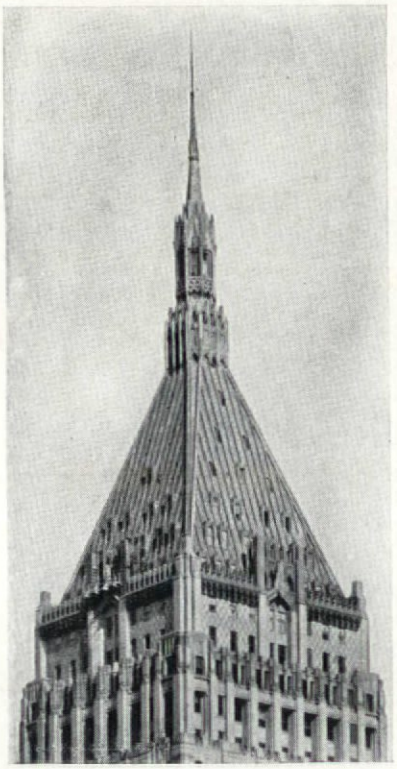
LEADER BUILDING ∴ ∴ CLEVELAND, OHIO

The Famous

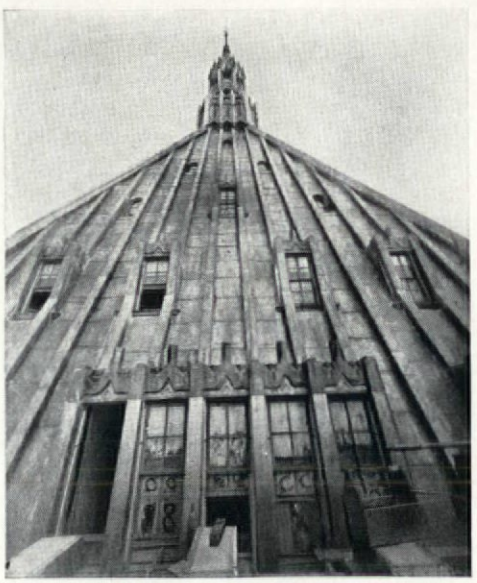
TIGER FINISH

And—Tiger Mason's, Tiger Agricultural, Tiger Chemical, Tiger All-Purpose Hydrate in 10-lb. packages, and High Calcium and Magnesium Lump Limes. Also Quickslake (ground quicklime) in paper-lined jute sacks.

COPPER met the 4



The tower of the Manhattan Company Building as it actually appears. It rises 177 feet above the sixty-third floor.



An unusual perspective of the tower showing effect gained by the straight lines. The entire top is encased in Anaconda Copper.

Sheet metal workers applying the copper. The metal was fabricated in the shop from working drawings, making application on the job unusually fast.

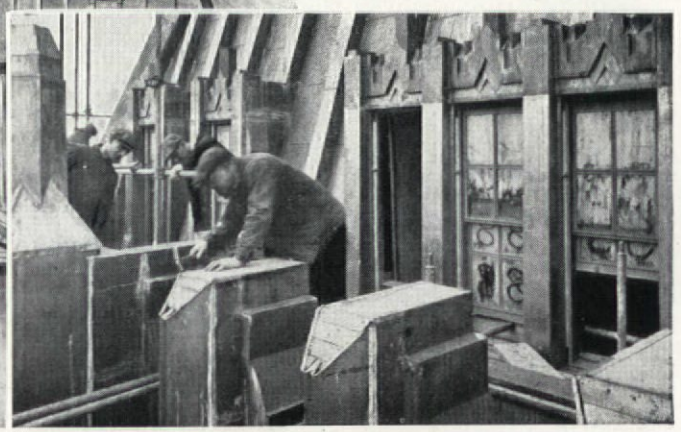
Reproduction of the architect's original rendering of the tower.

• • •

H. Craig Severance, Inc., Architects

Yasuo Matsui, Associate Architect

Starrett Bros., Builders



ANACONDA COPPER

requirements for the roof *of the* MANHATTAN COMPANY BUILDING

The tower of the Manhattan Company Building represents the successful solution of an unusually difficult problem in architectural design. Rising to a height of nearly a thousand feet, bold handling of materials was required to endow the tower with a feeling of mass, and to accentuate light and shadow. Straight lines, alternating ribs or battens, flat surfaces and the high relief of a few decorative elements, all contributed to the final effect . . . In addition, by lead-coating the copper, the precise tonal values desired for the tower were achieved . . . But the tower did far more than demonstrate the adaptability of Anaconda Copper to the architects' decorative plans. It demonstrated the practical and economic advantages of copper as well. On this important project, the following four chief requirements in the selection of roofing material were completely met by Anaconda Copper:

COST: Standard widths of sheet copper were utilized in planning the design of the roof. This saved the expense of special cutting and forming operations. Great economies were thus effected. Furthermore, the *workability* of Anaconda Copper made it possible for the sheet metal contractor to fabricate the thousands of separate pieces and to complete the installation within the scheduled time.

TIME: It was determined to erect this building in one year, or less. Standard materials, therefore, were essential. The architect and contractor assured themselves of prompt deliveries by taking advantage of the extensive manufacturing facilities of The American Brass Company.

DURABILITY: For hundreds of years copper has been recognized as the most durable of roofing materials. In specifying copper for the tower of the Manhattan Company Building, the architect considered the hundreds of copper roofs which are still in excellent condition after a century or more of service. The use of Anaconda Copper assures that, barring accidents, the roof will outlast the building.

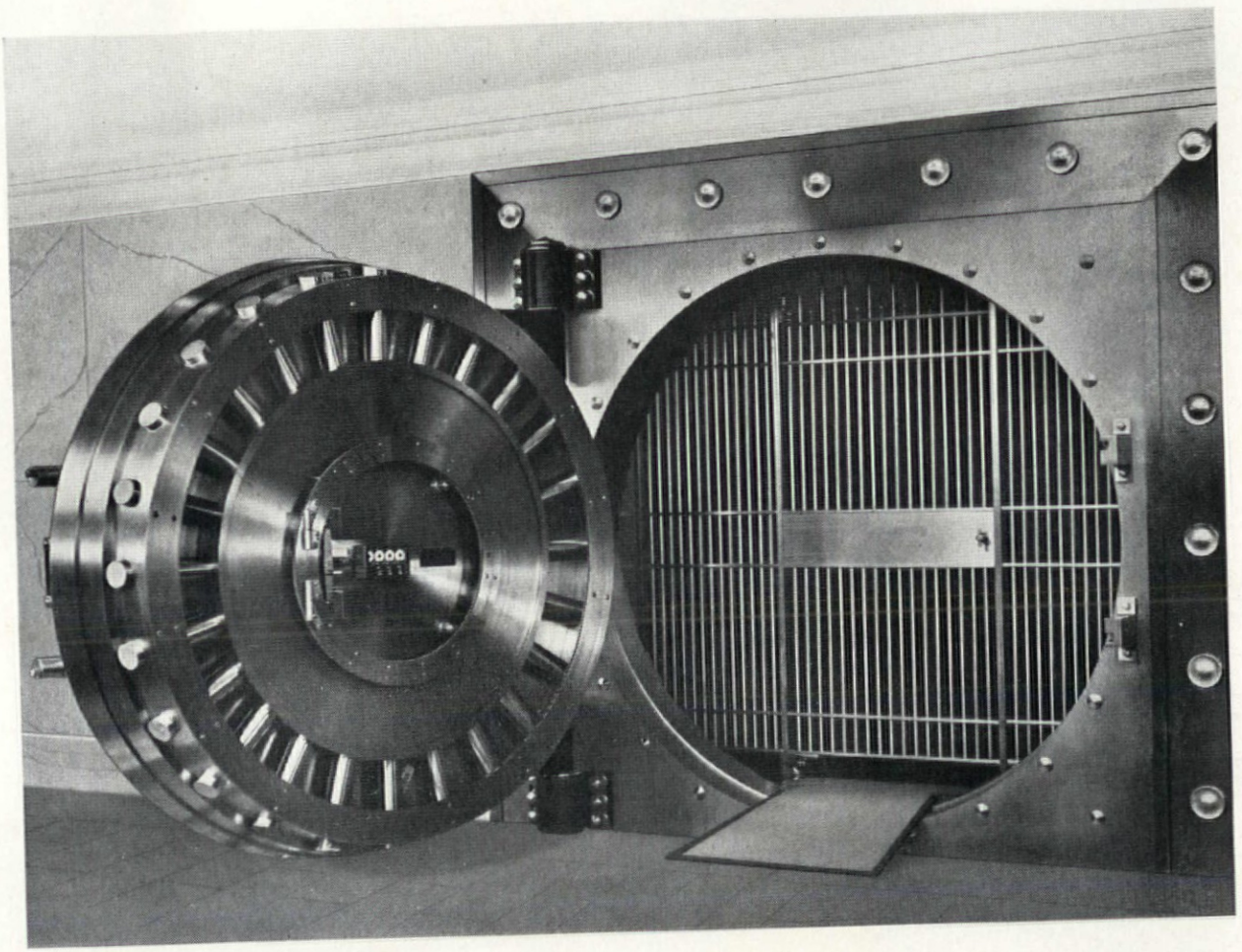
UPKEEP: Because of the durability of copper, the maintenance cost of a properly laid copper roof is extremely small. During the useful life of the Manhattan Company Building, the roof of this tower will require little or no upkeep expense.

The American Brass Company is always glad to cooperate with architects in solving problems involving the use of Copper, Brass and Bronze. A representative of the Company will call at your request. The American Brass Company, General Offices: Waterbury, Connecticut.

BRASS ANACONDA from mine to consumer BRONZE

★

Hand tooled



MASTERS at fitting and finishing put the final touch to Diebold Vault Doors . . . and with hand tools. That is why each one has about it a feeling of individualism that can't be produced from the mould of mass production • The Diebold Vault Door shown here weighs fifty tons. Yet it moves on its giant crane-hinge mounting to the touch of the hand. Closed and fully checked it withstands the most determined attack of expert cracksmen.

Diebold Safe and Lock Company

Canton, Ohio

SEVENTY YEARS OF BANK SERVICE

«Let's Build a Boiler like an Automobile Radiator»

. . . Said H. M. Jerome



The late H. M. Jerome, Automotive Engineer, scientist, and inventor.

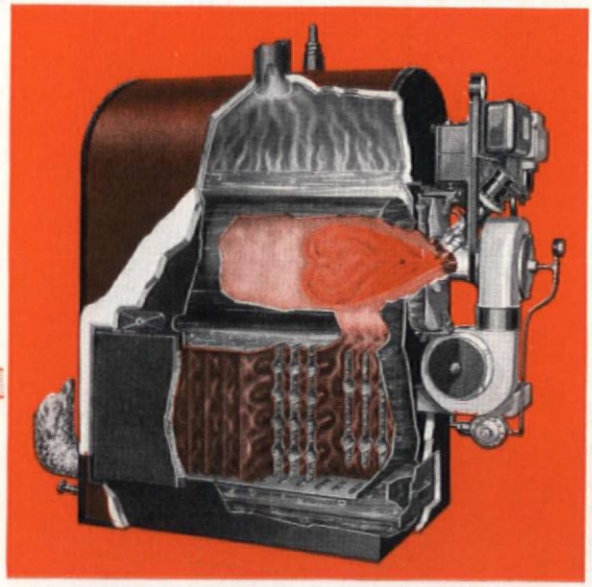
WHY should a man noted for his successes in the field of automotive engineering concern himself with boilers for home heating? When a really scientific problem presents itself, a true inventor, once interested, cannot rest until it is solved. And Inventor Jerome was determined. He would perfect *an automatic heat machine that would deliver heat at low cost.*

The cooling system of an automobile engine and a house heating plant are much alike . . . both transfer heat. In an automobile motor the tremendous heat developed in the combustion chamber must be carried away. Water around the chamber absorbs the heat . . . passes it through the great number of small passageways in the radiator, which is exposed to the cool air, . . . and the heat from the water is radiated into the open air.

«Why not build a boiler like an automobile radiator,» reasoned Mr. Jerome. But, instead of exposing the «radiator» to the air and allowing it to throw off heat . . . expose it to the hot gases of combustion (from fuel oil or gas) and make it *absorb* the heat and pass it on into the heating system.

The high velocity flow, through the very irregular water and air passages of an automobile radiator, produces a turbulence that washes off the film of air, which by adhering to the metal reduces conductivity. The result is a greatly increased heat transfer. In the Gar-Wood, the combustion chamber is placed at the *top* of the boiler and well over one-half the fuel's radiant heat is absorbed by the water immediately surrounding the chamber. The remaining hot gases pass down into the narrow openings between a series of flat water tubes, which are baffled in such a way as to cause a scrubbing action of the hot gases against the steel walls of the tubes.★ The result is an almost complete transfer of the remaining heat into the water sections. Stack temperatures are held just high enough to prevent condensation.

★ The short, wide flues of the old type boiler are not built to absorb the intense heat produced by an oil burner.



Complete details of this most efficient and more economical balanced heating unit are to be found in our new book. The coupon brings it.

Gar Wood Engineering Co.
4196 Bellevue Ave., Detroit, Mich.
Gentlemen: Send me . . . *without cost or obligation* . . . a copy of "A New Principle of Generating Heat at Low Cost."

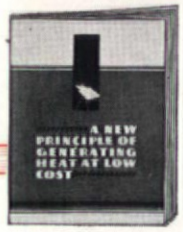
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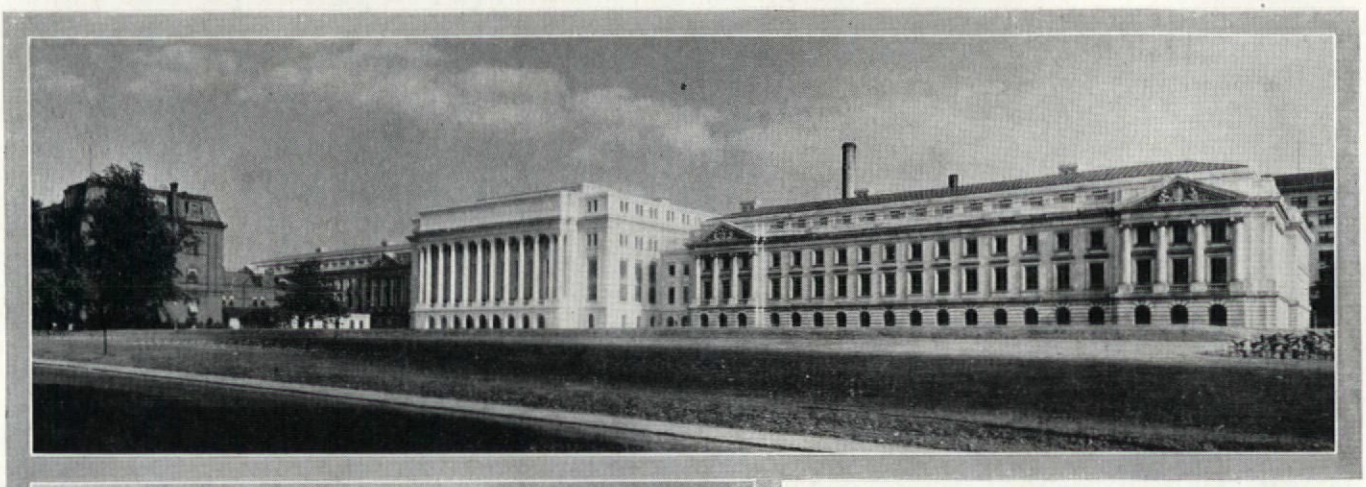
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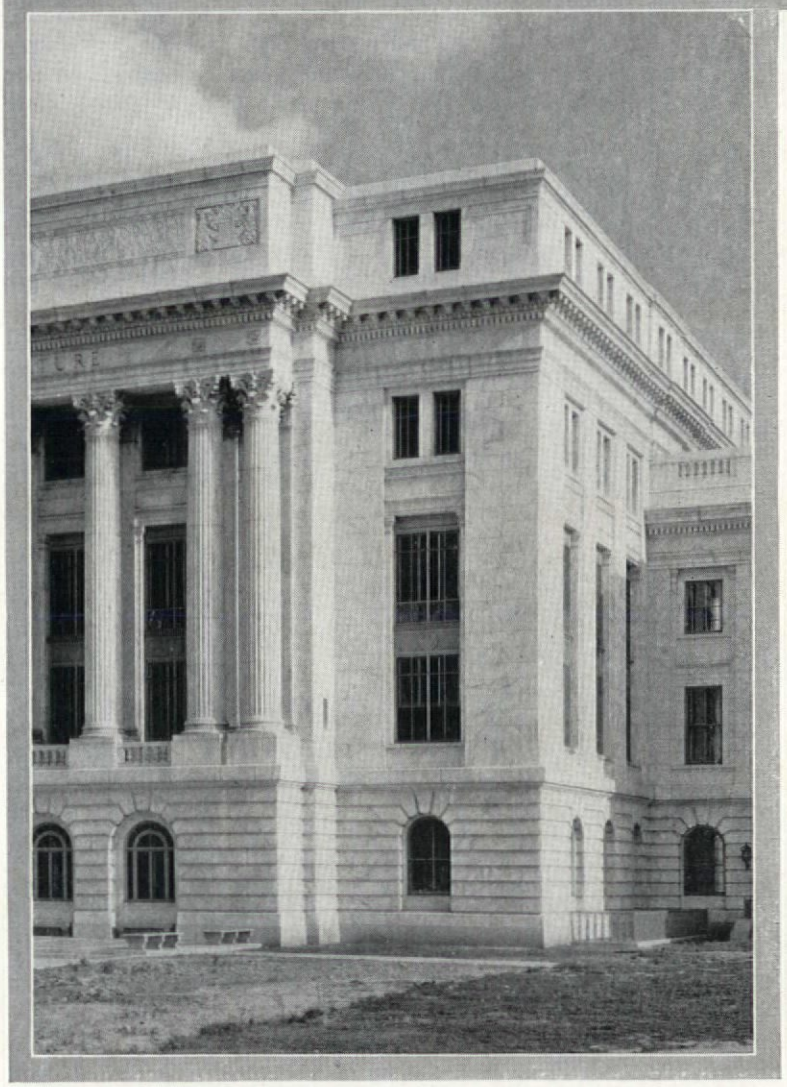
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Gar-Wood

GEORGIA MARBLE



DEPARTMENT OF AGRICULTURE
Washington, D. C.



JAS. A. WETMORE, *Acting Supervising Architect*, Treasury Department
THE GEO. HYMAN CONSTRUCTION CO., *Builders*

BEAUTY *and* DURABILITY

THE use of Georgia Marble by the Government for one of its most important Department Buildings is sufficient evidence of its fitness for any building where beauty and durability are considerations. Only the new Administration Building in the centre of the group (close-up at left) is Georgia Marble.

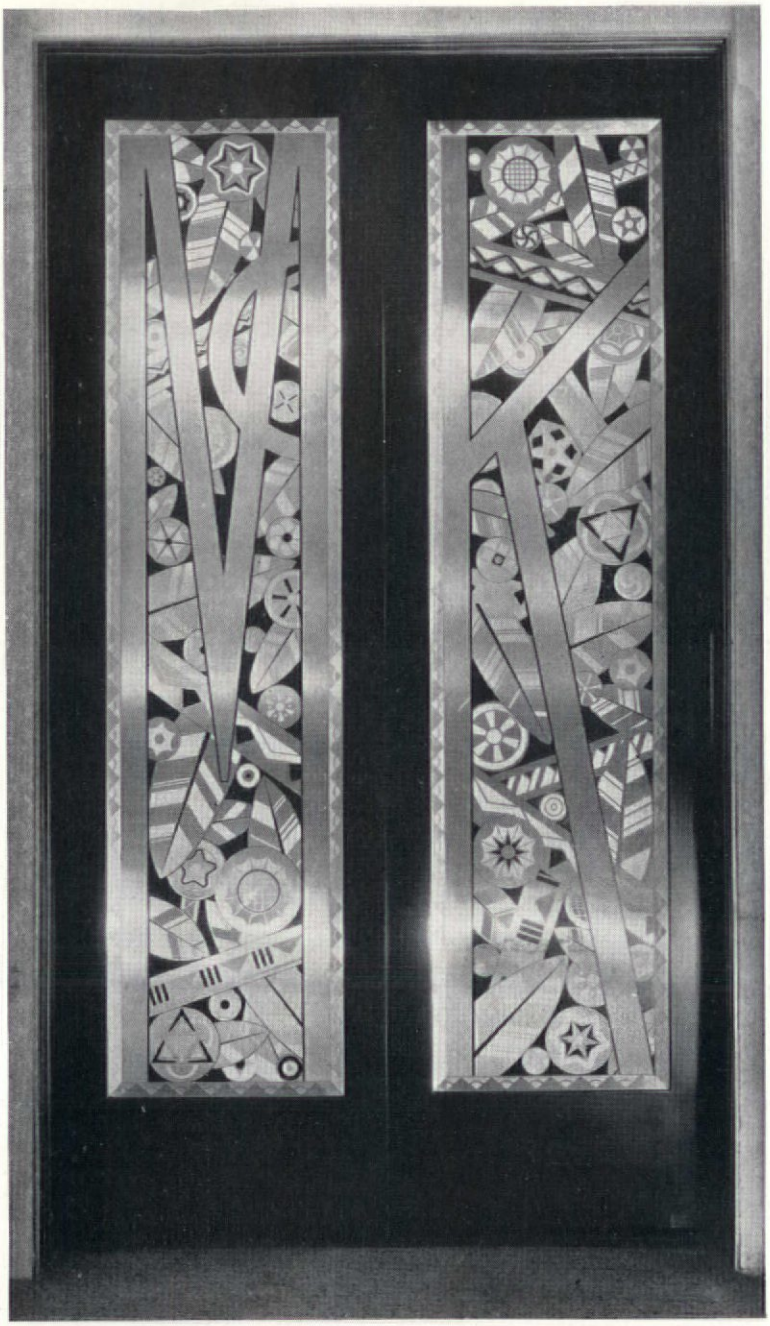
Eight quarries operating both winter and summer insure uninterrupted deliveries.

THE GEORGIA MARBLE COMPANY · TATE · GEORGIA

1328 *Broadway*	814 *Bona Allen Bldg.*	648 *Builders' Bldg.*	622 *Construction Industries Bldg.*	1200 *Keith Bldg.*
NEW YORK	ATLANTA	CHICAGO	DALLAS	CLEVELAND

Specify

THORP DOORS



MODERNIZATION— Begins in the Lobby

Although the McKnight Building is still one of the best rented office buildings in Minneapolis, its farsighted owners saw that it must soon struggle to keep pace with newer structures.

Realizing that the lobby gives the main impression of a building's tone, they had Hewitt & Brown, Inc., design new elevator enclosures for the ground floor. The Thorp Organization made the doors with their usual skill, following with scrupulous care the designs of the architects. The resulting effect is not only new, but imparts a strikingly modern feeling to the whole building.

The new elevator enclosures in the McKnight Building, Minneapolis, are etched nickeled silver with the design picked out in black. Hewitt & Brown, Inc. Architects.

THORP FIRE PROOF DOOR COMPANY
Minneapolis Minnesota

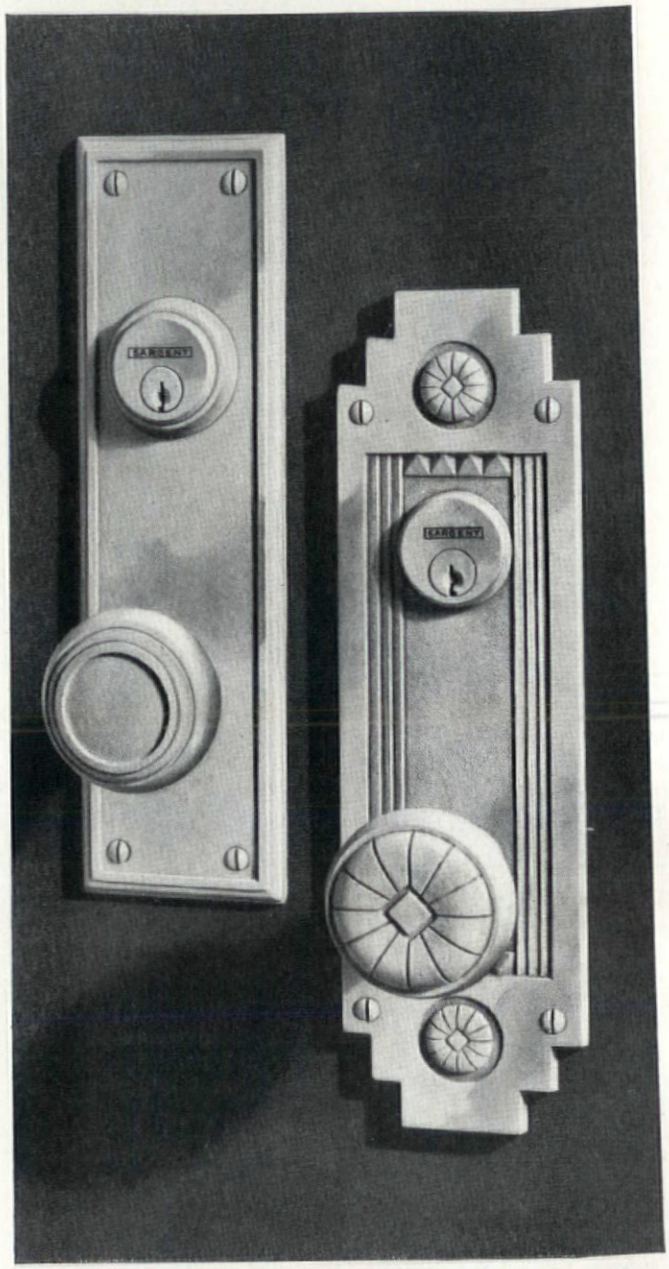
SARGENT HARDWARE

In Aluminum Alloy

SARGENT KEEPS in step with all the most modern trends in hardware manufacture. Designs appropriate for every style of decoration — authentic reproductions, artistic adaptations, modern designs expressive of the latest decorative tendencies. Materials and finishes that suit every building need — solid brass, solid bronze, white bronze of enduring silvery finish, rustless hand-forged black finish.

Sargent recently completed an equipment in aluminum alloy for the Aluminum Company of America. This new material for hardware brings out all the refinement of the design. It resists corrosion under all weather conditions. And its soft silvery sheen blends perfectly with all backgrounds.

The perfect operation, beauty, and durability of all Sargent Hardware can be depended on. Sargent & Company, New Haven, Connecticut; 94 Centre Street, New York City; 150 North Wacker Drive (at Randolph), Chicago, Illinois.



Two Sargent Hardware items made in aluminum alloy

SARGENT

LOCKS AND HARDWARE

TURNING PLANS INTO REALITY



WESTERN UNION TELEGRAPH COMPANY BUILDING, NEW YORK

TODAY—the development of American architecture has reached a plane that holds the undivided attention — the admiration and acclaim of the entire world.

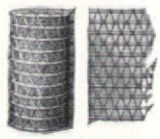
Today—the architect and builder are causing vast edifices to tower more and more toward the sky—to stand as enduring monuments to present standards of design and efficiency of materials.

Today—as in years past—the American Steel and Wire Company is supplying a major portion of the wire fabric (the steel backbone of concrete) that enables plans to be turned into reality.

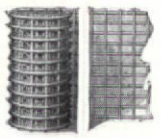
So—we take justifiable pride in the confidence engendered by our products—and extend the full services of our engineering and technical staffs to the solution of specific reinforcement problems. Write to our nearest sales office for information and literature.

WIRE FABRIC

THE STEEL BACKBONE OF CONCRETE



Triangle Mesh Wire Fabric Reinforcement. Furnished in rolls or sheets.



Electric Weld Wire Fabric Reinforcement. Furnished in rolls or sheets.

Western Union Telegraph Company Building, New York, Voorhees, Gmelin & Walker, Architects. Marc Eidlitz & Son, General Contractors. Senn-Herricks Corp., Fireproofing Contractor.

AMERICAN STEEL & WIRE COMPANY

SUBSIDIARY UNITED STATES STEEL CORPORATION

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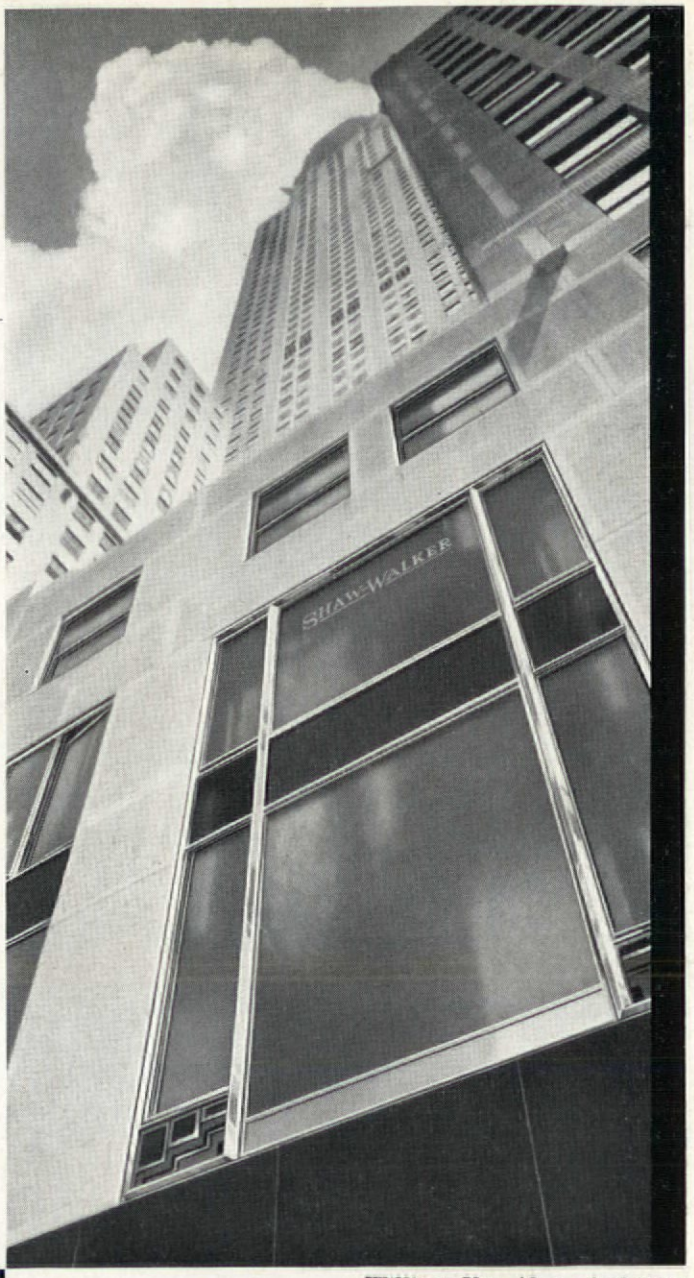
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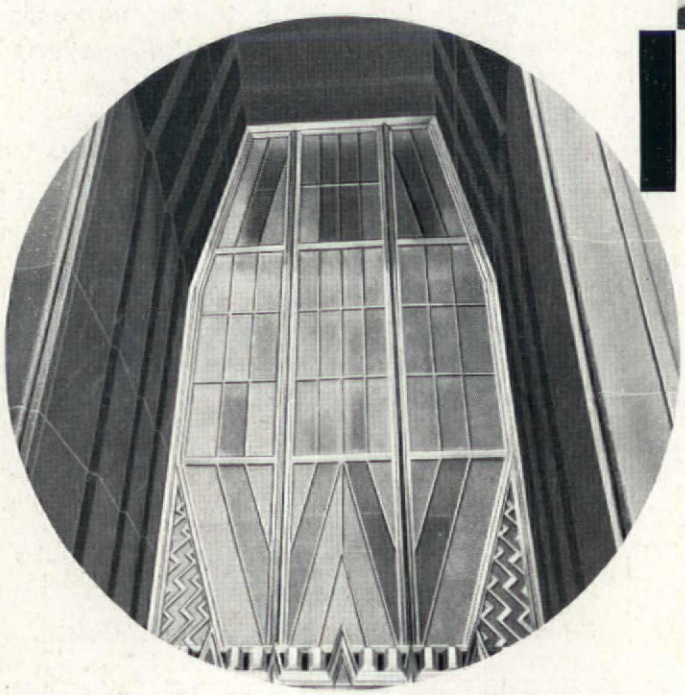
William Van Alen, *Architect*

UP IN THE CLOUDS and down on the street, from the Tower Dome to the sidewalk showroom, wherever a special window job was required, the Chrysler Building used Lupton Windows.

These included the store fronts on the street level, in the main lobby, and down in the subway basement. The two main entrances, a detail of which is shown in the circle, were Lupton made. The decorated steel panels, used at various places in the architecture, were also produced by Lupton.

In addition, the Lupton contract called for 78 special windows in the Tower Dome. All of these Lupton Products were done in Stainless Steel, a material whose gleaming finish adds much to the impressiveness of fine office buildings.

Wherever an unusual example of window craftsmanship is specified, Lupton is usually called in on the job. The Lupton organization has artisans who have given their lifetimes to the fabrication of fine steel windows. Their skill is supplemented by the finest of tools and materials.



Lupton is equally well known for its standard line of windows. You will find the details on these in your current edition of *Sweet's*. We will gladly consult with you on special jobs as well. David Lupton's Sons Company, 2209 East Allegheny Avenue, Philadelphia, Pennsylvania.

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Stronger Than Plain Concrete

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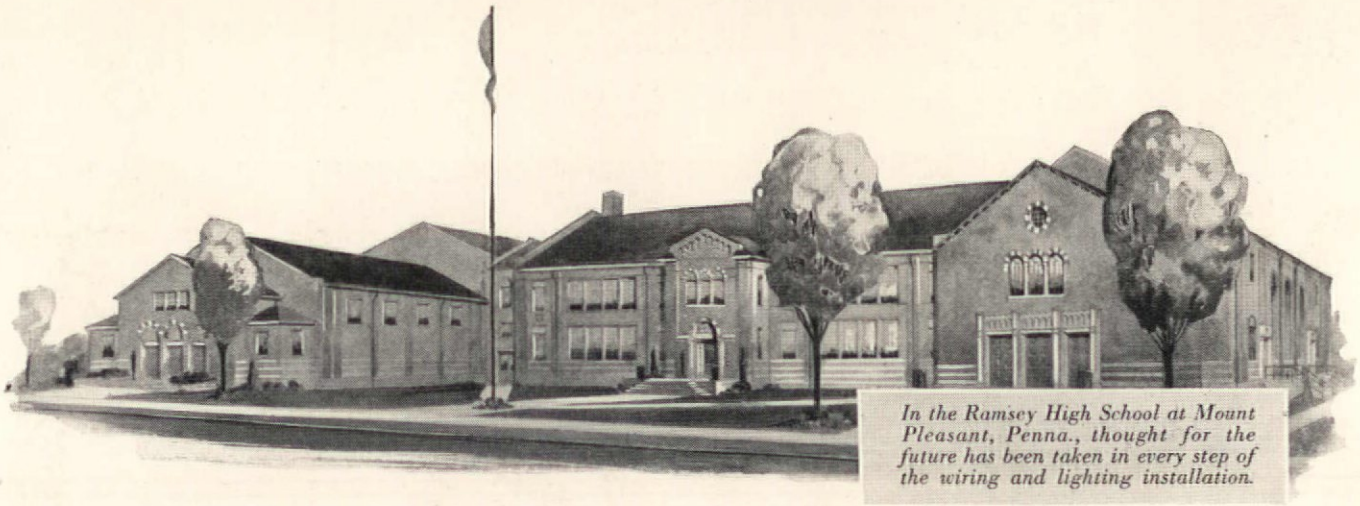
Tile Red Masterbuilt Floor in Hill Street Garage, Los Angeles, California.
Architect: Kenneth McDonald. Contractor: P. A. Palmer Co

Colored Masterbuilt Floors

HARDENED DUST-PROOF CONCRETE

FORESIGHT IN WIRING AND LIGHTING PRACTICE *helps to keep schools modern*

by RUSSELL G. HOWARD, *A. I. A., Registered Architect, Dubois, Penna.*



In the Ramsey High School at Mount Pleasant, Penna., thought for the future has been taken in every step of the wiring and lighting installation.

THE high school building that is to stay modern must be able to keep pace with the steady increase in the use of electricity called for by the specialized and vocational type of training that high schools provide today.

In the design of the Ramsey High School at Mount Pleasant, Penna., it was apparent that this trend raised special wiring and lighting problems. Electricity must be made available for light—for power—for special heating applications. Extra-curricular activities could not be forgotten, for the high school has become a center for social and athletic affairs that call for specialized lighting applications.

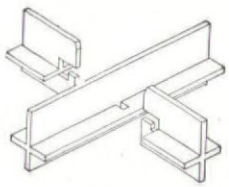
The recognition of a need for a practical basis by which to measure and provide for this increased use of electricity led to contact with the lighting and wiring service department, a non-commercial section of the local electric company. Here was found a thoroughly practical knowledge of the factors to be considered in avoiding an inadequate wiring installation and a broad perspective on which to base predictions of future requirements. The help and advice it furnished resulted in an electrical layout providing two circuits for each classroom, with a spare circuit for each five active circuits. No wire smaller than No. 12 was used and in every case the wire specified makes possible an increased use of light. In addition to the usual type of lighting in the gymnasium and auditorium, wiring for decorative lighting is provided, together with complete stage lighting equipment. All entrances are wired for flood lighting.

Wiring for purposes other than lighting is unusually complete, including heavy-duty convenience outlets for classrooms, lecture rooms and halls. There are motorized manual training rooms, and wiring for a public address and radio system, for television and for electric clocks.

It is not enough that buildings erected today be suitable only to today's conditions. They must be adaptable to developments of the kind that are typified in the ever increasing use of electricity.

For information about trends in lighting standards and about adequate wiring, call on the wiring bureau of your local electrical service company or write direct.

NATIONAL ELECTRIC LIGHT ASSOCIATION, 420 LEXINGTON AVENUE, NEW YORK



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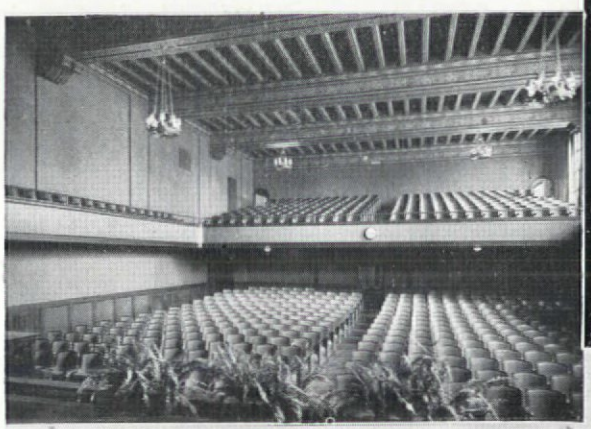
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Wrought Iron Window Sash Originators



The exterior view below shows the Little Rock Senior High School, Little Rock, Arkansas, in which modern American Seating Company posturally correct seats are used. Kiehnel & Elliott, Miami, Florida, were the architects. The smaller view at the top shows a typical arrangement of American Universal movable seating. Below, a modern school auditorium seated with comfortable upholstered assembly chairs with sound absorption values built in to aid acoustics.



The *Posture* Element in School Seating

There is more to the selection of school seating than merely providing children with something on which to sit.

School seats now perform other functions that science and modern education demand. Posturally correct school seating is recognized today as a decided factor in the physical and mental development of the child . . . a factor with which architects should reckon.

In specifying American Seating Company school seats, architects give school children all the physical and mental protection that science can provide. Seats that help the child sit erect, that help the lungs expand, that give the heart full freedom and give the spine a normally erect position.

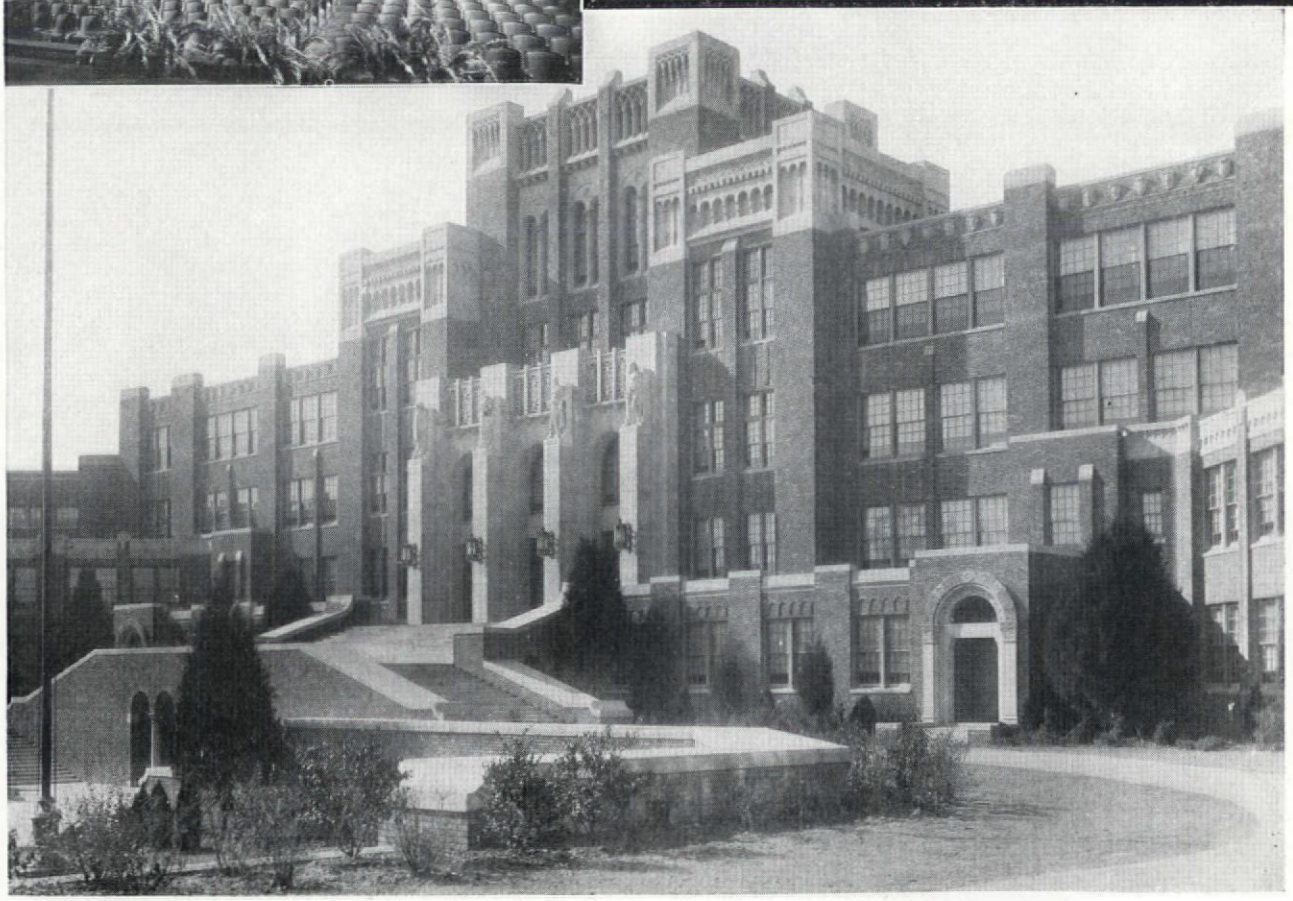
The facts on how the American Seating Company school seat of today makes a major contribution to the general health, strength and mental progress of school children are available. Twelve authoritative booklets on school room posture and seating will be mailed, *free*, on request.

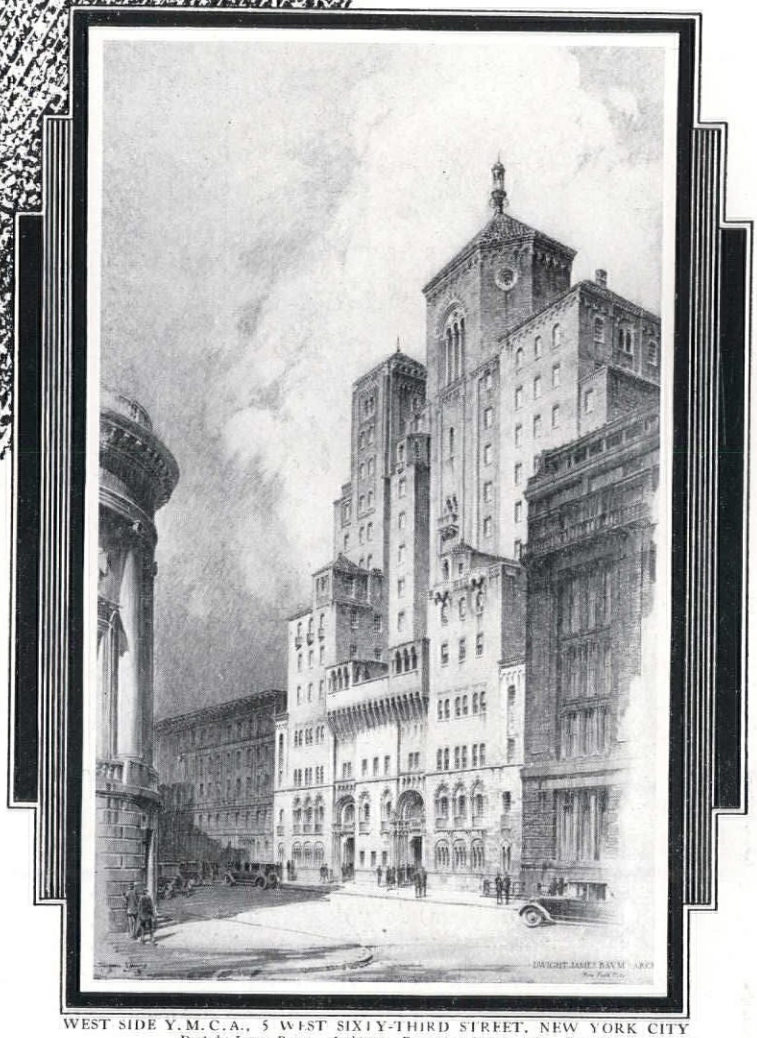
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WEST SIDE Y.M.C.A., 5 WEST SIXTY-THIRD STREET, NEW YORK CITY
Dwight James Baum, Architect. Browning Painting Co., Painting Contractor

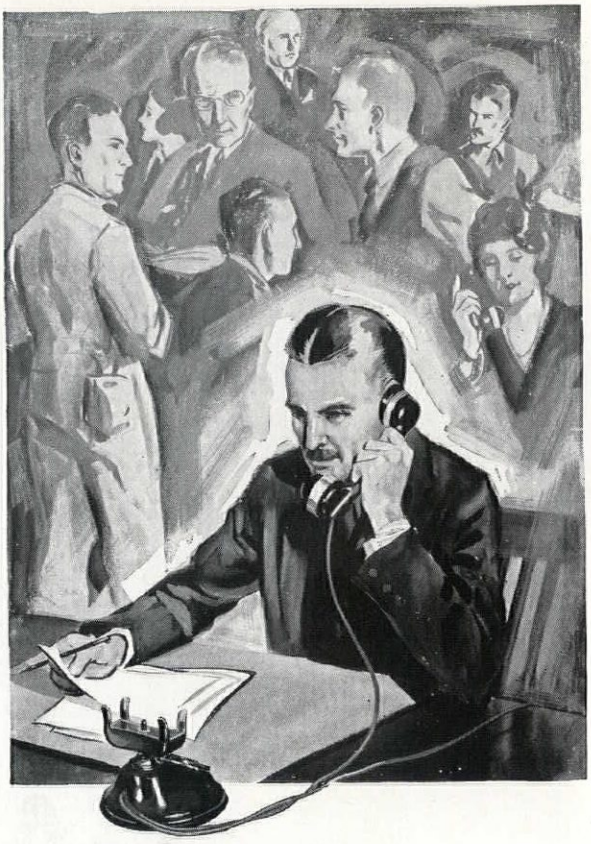
EXECUTIVES of the Y.M.C.A. regard the above new structure at 5 West 63rd Street, New York City, as the most complete of its kind. The walls and ceilings of this attractive 14-story building have been finished with Lyt-all, the Universal Wall Coating, insuring beauty, durability and low maintenance cost. Used for the finest residential work, its practicability, pure color and durability make Lyt-all ideal for wall work where superior results must be secured economically.

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Each block a complete unit, laid in EVERBOND, a plastic cement, directly over concrete. Unit blocks insure economical floors for all types of buildings; adaptable also to design patterns for walls and ceilings.

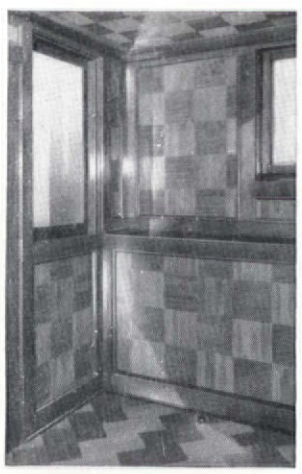
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Rectangular blocks 6" x 12" and 6¾" x 13½"; also in maple 6½" x 13". Square blocks, 13-16" thickness in the following sizes:						
6¾ in.	6¾ in.	6¾" & 7½"	*for walls*	6¾ in.	6¾ in.	*also in*
7½ in.	7½ in.	8 in.	*and ceilings*			*1 1-16" thickness in the following sizes:*
9 in.	9 in.	9 in.	6¾ in.	9 in.	9 in.	
		9¾ in.	9 in.			
10½ in.		10 in.				
11¼ in.	11¼ in.	11¼ in.	11¼ in.	11¼ in.	11¼ in.	
12 in.	12 in.	12 in.				6¾ in.
		13 in.				9 in.

*For industrial floors, maple blocks are also fabricated 1 5-16" thick; 6¾" to 10" squares

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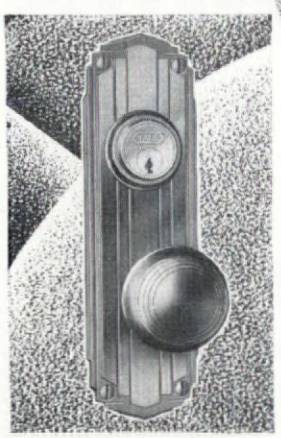
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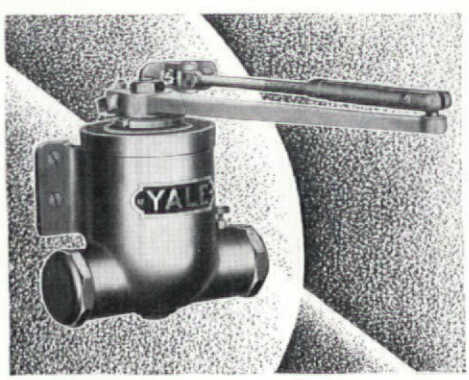


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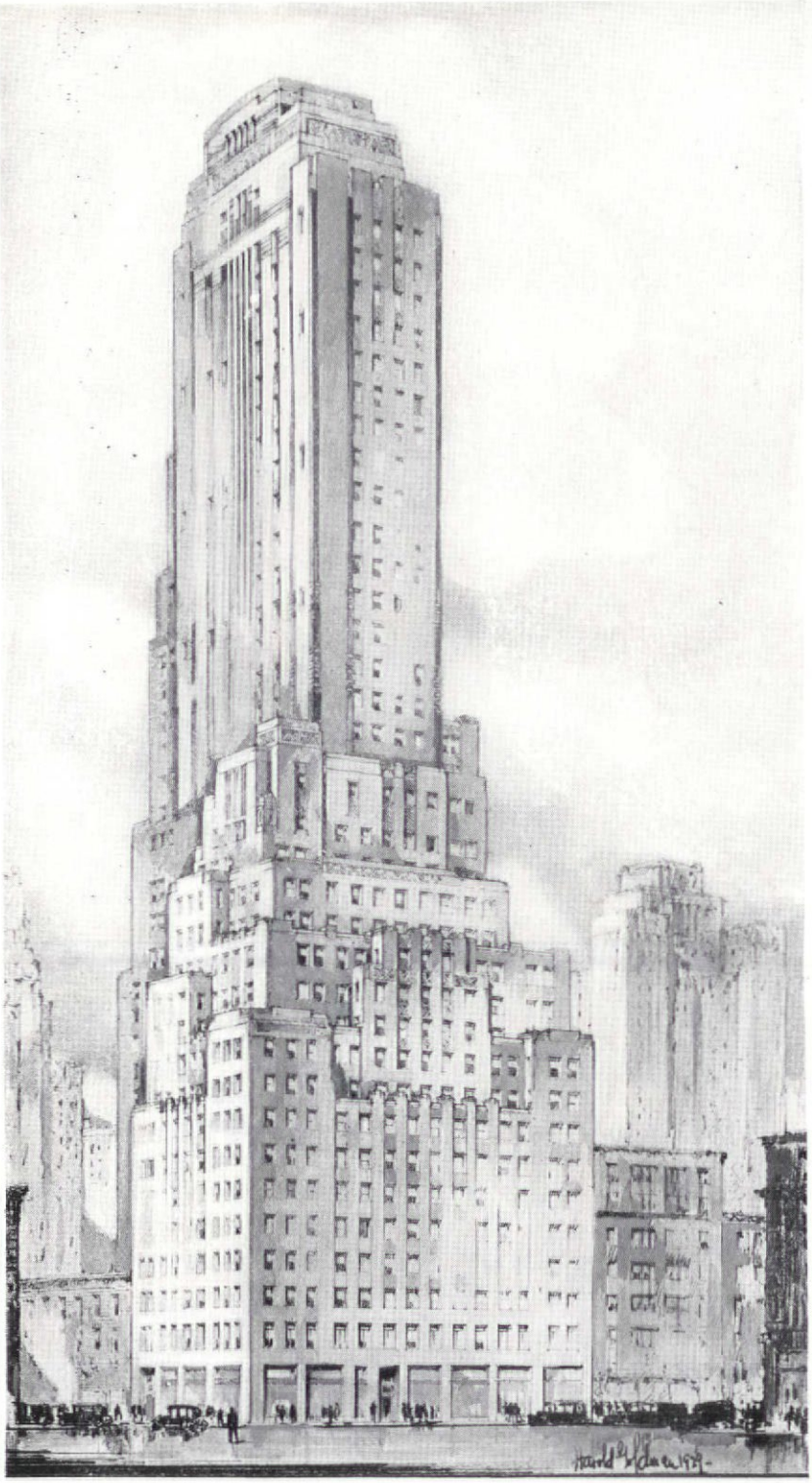




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ARCHITECT: LAFAYETTE A. GOLDSTONE

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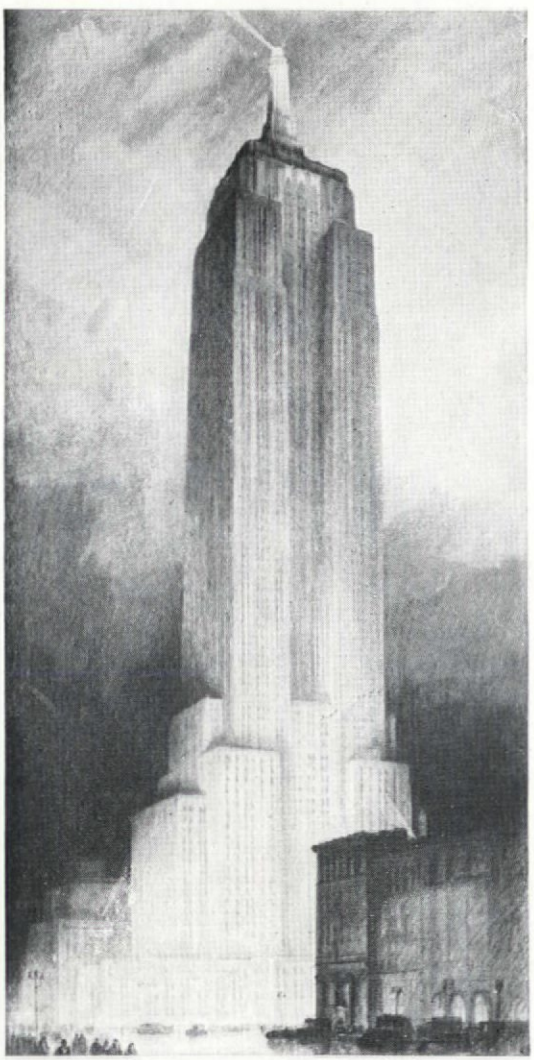
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Owner—*Empire State, Inc., 200 Madison Ave., N. Y. C.*

Architect—*Shreve, Lamb & Harmon, Architects, 11 E. 44th St., New York City.*

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Sub Contractors—*C. E. Halback & Co., 190 Banker St., Brooklyn; Wm. H. Jackson Co., 335 Carroll St., Brooklyn.*

On 5th Ave. at 34th Street in New York a giant new building is going up—the Empire State Building—Shreve, Lamb & Harmon, Architects. The spandrels, alone, used for this structure have reduced weight by over 600 tons.

5704 spandrels cast of Alcoa Aluminum are being used. Being only ⅓ as heavy as other metals commonly used, they save twice their own weight. They save on handling costs from the first step in fabrication to the final setting into place. And they cost no more than would similar spandrels made of heavy old-fashioned metals.

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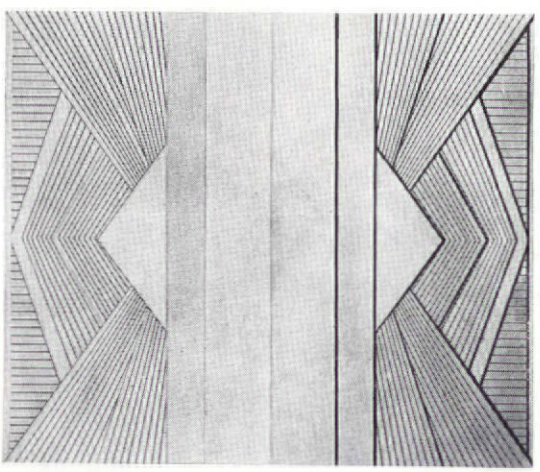
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(*Below*) One of the 5704 Alcoa Aluminum Spandrels used on Empire State Building. Total weight approximately 600,000 lbs.



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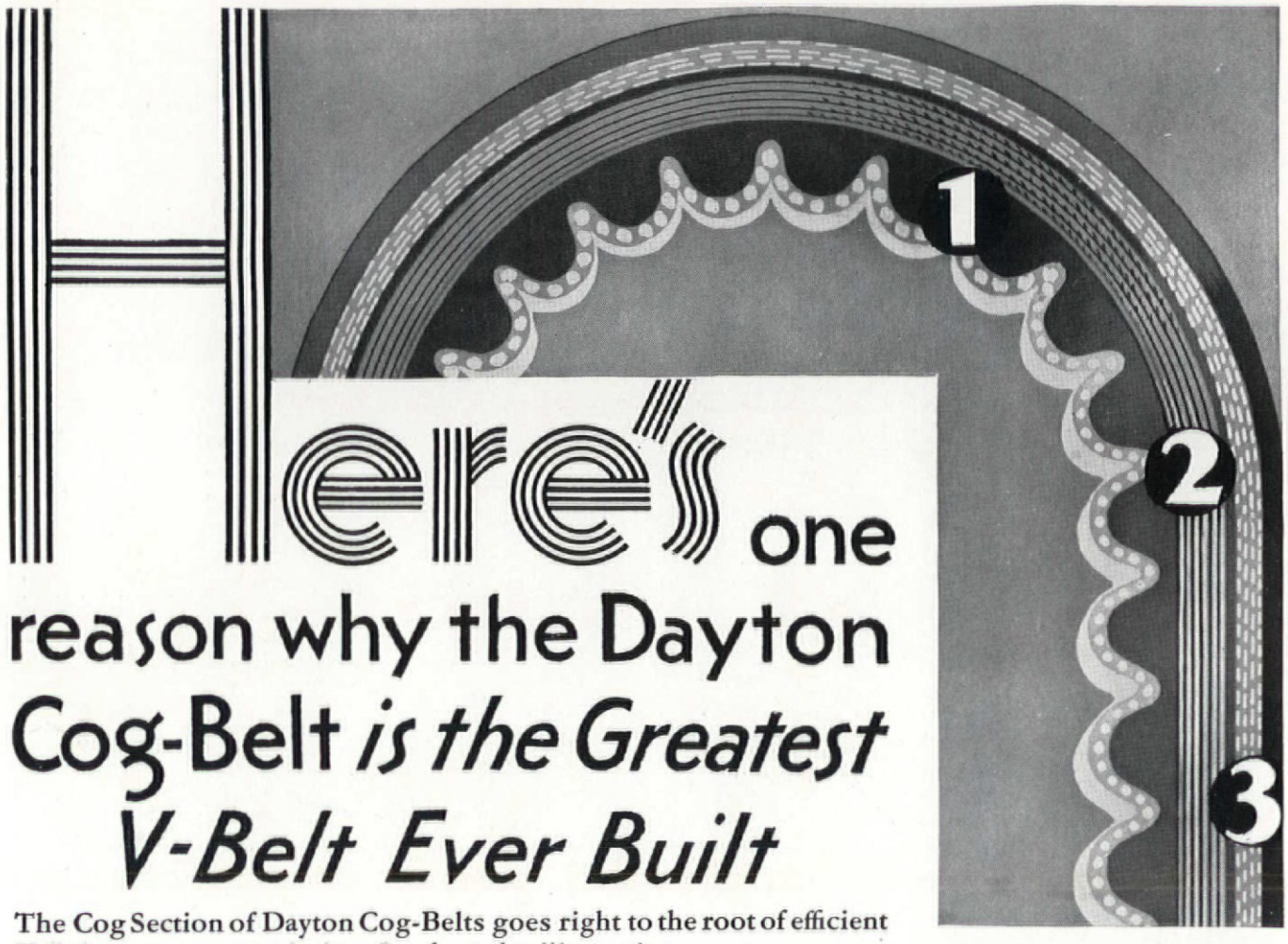
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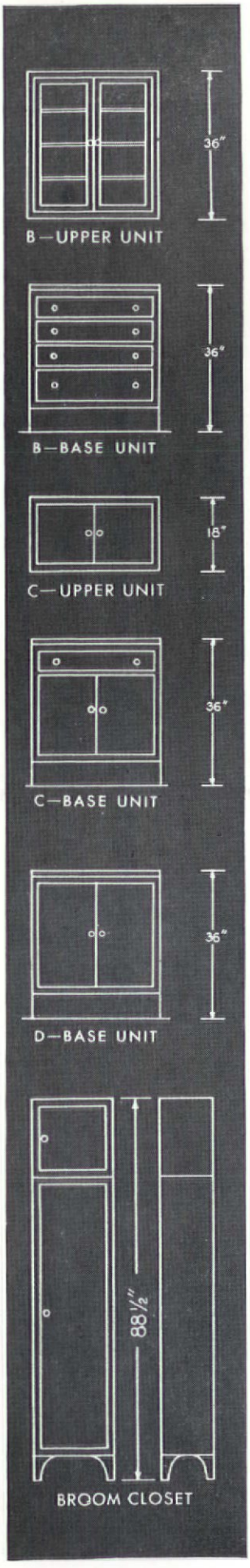
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THE use of Soapstone for exterior trim is not a new development. It is, rather, a revival of interest in this natural stone whose heritage in America goes back to the early 1700's.

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For veneer spandrels, soapstone, of the superior grade quarried in Virginia (and trade-marked "Alberene Stone" for identification) has distinct advantages, among which are—unlimited design possibilities, color, texture, thinness, erection economy and entire freedom from maintenance expense.

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*The soapstone used in 1736 is still there, unrestored.

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THE SUPERIOR SOAPSTONE QUARRIED IN THE STATE OF VIRGINIA



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In the du Pont laboratories they call this *Pre-testing*. And that term means everything you think it does. It refers to work done in establishing new paint formulas and the individual characteristics of resulting products. It is the rule in checking the finished product against the various established standards so as to maintain unvarying high quality.

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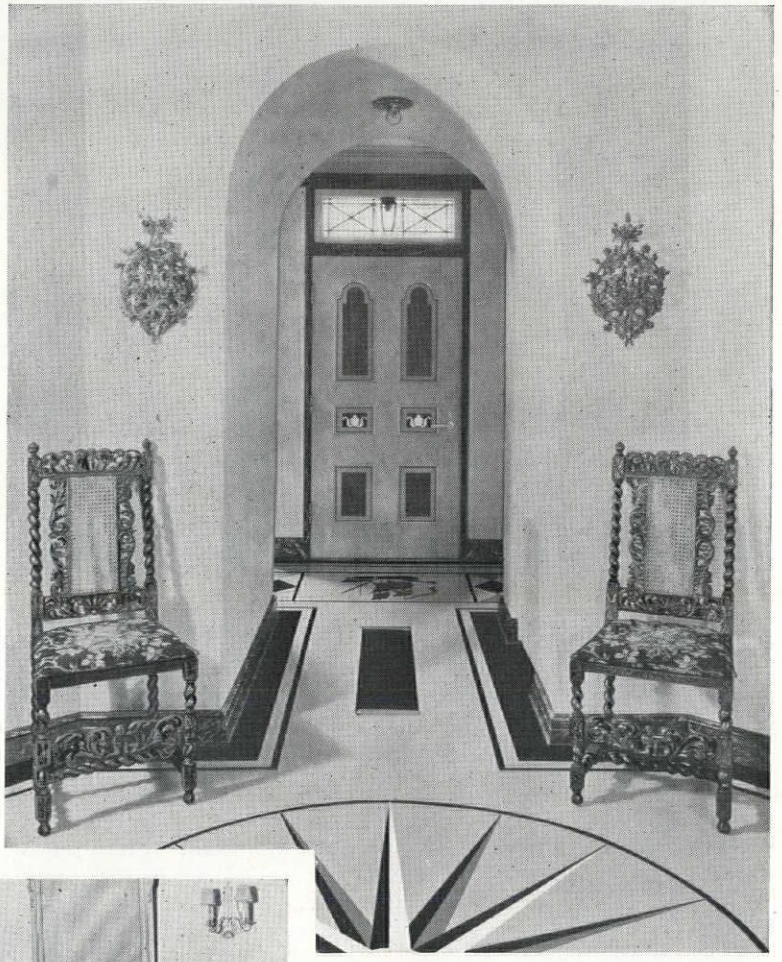
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...as BEAUTIFUL *as you make them*

The charm of custom-built floors depends solely on the ingenuity of the designer...



This custom-built floor is made from Armstrong's Linotile. The hall of a beautiful Buffalo residence, designed by Mr. Frederick J. Pike, interior decorator.

AN Armstrong's Linotile Floor can be as beautiful as the loveliest mosaic. Its appeal depends entirely on the pattern which the architect designs for it.

It makes no difference whether the room you are decorating is French, Moorish, Colonial, or Modernistic. An Armstrong's Linotile Floor can be created that will blend with any color scheme or fit into any room interior.

Whatever the taste of your clients may be, you can be sure that Linotile will please them. The rare beauty, the deep, rich colors attained by these floors will appeal to the home-owner and all her friends.

And their appeal will include not only beauty but utility, too. These warm, footstep-muffling floors give lifetime service. They are easily cleaned. They require very little attention to keep that "day - they - were - installed" look. Because of their splendid resistance to hard usage, Armstrong's Linotile Floors are just right for private residences—and for banks, stores, and other buildings where custom-laid floors can add that precise decorative effect.

Let us send you our illustrated booklet, "Custom-Built Floors of Cork." It contains all the necessary information about Armstrong's Linotile. It will also tell you about Cork Tile, another Armstrong's tailor-made floor. Just write to the Armstrong Cork Company, Custom Floors Department, Lancaster, Pennsylvania.



~ ~ ~

Another Armstrong's Linotile Floor in the same home. The colors are black and gray. This was also created by Mr. Pike.

Armstrong's (A) Product

Armstrong's CUSTOM FLOORS

LINOTILE **CORK TILE**

MADE BY THE MAKERS OF ARMSTRONG'S LINOLEUM

CONNECTICUT

inter-communicating systems

FOR EVERY NEED



9350W

Connecticut Floor Type Switch Board—capacity 50 lines. Especially designed for large apartments, hotels and industrials where it is not desirable to have the rental type of installation.



520W

Connecticut Surface Wall Telephone fitted with standard transmitter and receiver. Button spring mechanism assembled as separate unit independent of cover containing the line terminals on a metal frame and mounted within the cabinet. Cardholders furnished with transparent celluloid strips to protect name cards. Standard finish golden oak with nickel trim. Furnished in multiples of four buttons. Phones similar to the 520W are for smaller installations and can be supplied for either common talking, selective ringing, or selective, non-interfering service, as desired.

SHOWN on this page are integral units of various inter-communicating systems especially designed by the Connecticut Telephone and Electric Corporation for apartment houses, residences, hotels, schools, banks, hospitals, industrial plants, offices and theatres.

There is a perfected Connecticut inter-communicating system for every type and size of building.

These systems may be installed either at selected stations or to include connections on each floor with all departments, and building or home employees. Thus immediate instruction can be given and check-ups made. Without hurrying and scurrying all over the building, the staff may constantly be in touch with a central office or with one another. It is the efficient way to handle the management of any building.



6000W

Connecticut Cradle Phone is new in design and equipped with bakelite hand phone. Supplied complete with 6 foot mercerized cord and terminal block. May be substituted for conventional desk type phone. Removing hand phone connects the instrument to the talking circuit. Is furnished with 4, 6, or 8 buttons. Finish is dull black.



41W

Connecticut Surface Wall Telephone has hinged metal case, standard transmitter and receiver, double gong bell, and one button for calling central. All outgoing wiring in hinged front is cabled to terminals on face of back. Terminal screws threaded into brass bushings. Back drilled fr single-gang outlet box mounting. Finished in baked black enamel.

DISTRICT FACTORY REPRESENTATIVES

Connecticut Telephone and Electric Corporation

The companies listed below are represented by qualified engineers in every case. They will gladly supply any architect, owner, engineer or contractor with complete information concerning Connecticut signal systems, recommend the best equipment for their particular job and assist with the laying out of the system.

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ATLANTA, GA., Electric Sales Co., 708 Walton Bldg.
BALTIMORE, M. D., H. E. Parsons Co., 230 E. Pleasant Street
BOSTON, MASS., Splitdorf Elec'l Co. of N. E., Inc., 52-54 Brookline Avenue
BUFFALO, N. Y., C. F. Germony, 80 Merrimac Avenue
CHARLOTTE, N. C., Lydon, Cousart & Weeks, 304-5 Builders Building
CHICAGO, ILL., Trimble Signal Co., 620 W. Adams Street
CINCINNATI, OHIO, Stifel Equipment Co., 622 Broadway
CLEVELAND, OHIO, O. H. Nickerson & CO., 720 Guarantee Title Building
DALLAS, TEXAS, Royal Smith, 912 Commerce Street
DENVER, COLO., Petersen Sales Co., 1921 Blake Street
DETROIT, MICH., D. R. Middleton, 705 Ford Building
INDIANAPOLIS, IND., Henry J. Damm, 704 Union Title Building
KANSAS CITY, MO., C. H. Annis Sales Co., 237 Railway Exchange Building
LOS ANGELES, CALIF., The Marwood Corp., 504 San Fernando Bldg.
LOUISVILLE, KY., Nicholson Electrical Sales, Inc., 214 Keller Bldg.
MEMPHIS, TENN., C. B. Rutledge, 203 Monroe Avenue
MERIDEN, CONN., Arthur J. Rogers, 70 Britannia Street
MINNEAPOLIS, MINN., Elliott Equipment Co., 708 6th Avenue, South
NEW ORLEANS, LA., Lighting Fixture Supply Co., 307 Tchoupitoulas Street
NEW YORK CITY, Inter-Comm. Tel. & Signal Corp., 17 East 42nd Street
OMAHA, NEB., Garritt S. Felt, 404 Merchants National Bank Building
PHILADELPHIA, PA., Herbert Bryan, The Bourse
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PORTLAND, ORE., The Marwood Corp., 65 First Street
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SEATTLE, WASH., The Marwood Corp., 1714 First Ave., South
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VANCOUVER, B. C., The Marwood Corp., 560 Beatty Street

WASHINGTON, D. C., W. Lester Baker, 504-5 People's Life Ins. Bldg.



600W

Connecticut Connectaphone is oval in shape and in a bakelite case. All wiring and soldering has been eliminated. The mouthpiece is an integral part of the case ,signal bell is concealed and phone is dust proof. Can be mounted on any of the standard outlet boxes or covers. Can be equipped with 1, 2 or 3 buttons.

CONNECTICUT TELEPHONE & ELECTRIC CORPORATION

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The MARSH WEATHER COMPENSATING SYSTEM of heating automatically meets the requirements of variable outside weather conditions with the greatest efficiency and economy. Specially designed compensating controls enable it to deliver only a sufficient quantity of heat to maintain a constant, comfortable temperature. A very great fuel saving is effected by placing the full demand upon the heating system *only* when its maximum output is needed. In spring, fall and winter, room temperatures remain constant.

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The MARSH WEATHER COMPENSATING SYSTEM of heating pays for itself *out of savings*—THEN DIVIDENDS. Write for booklet.

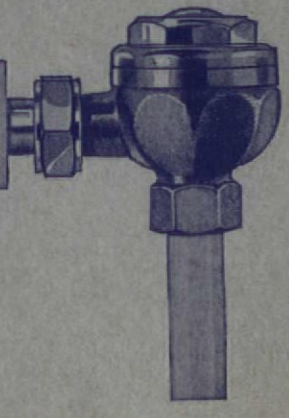
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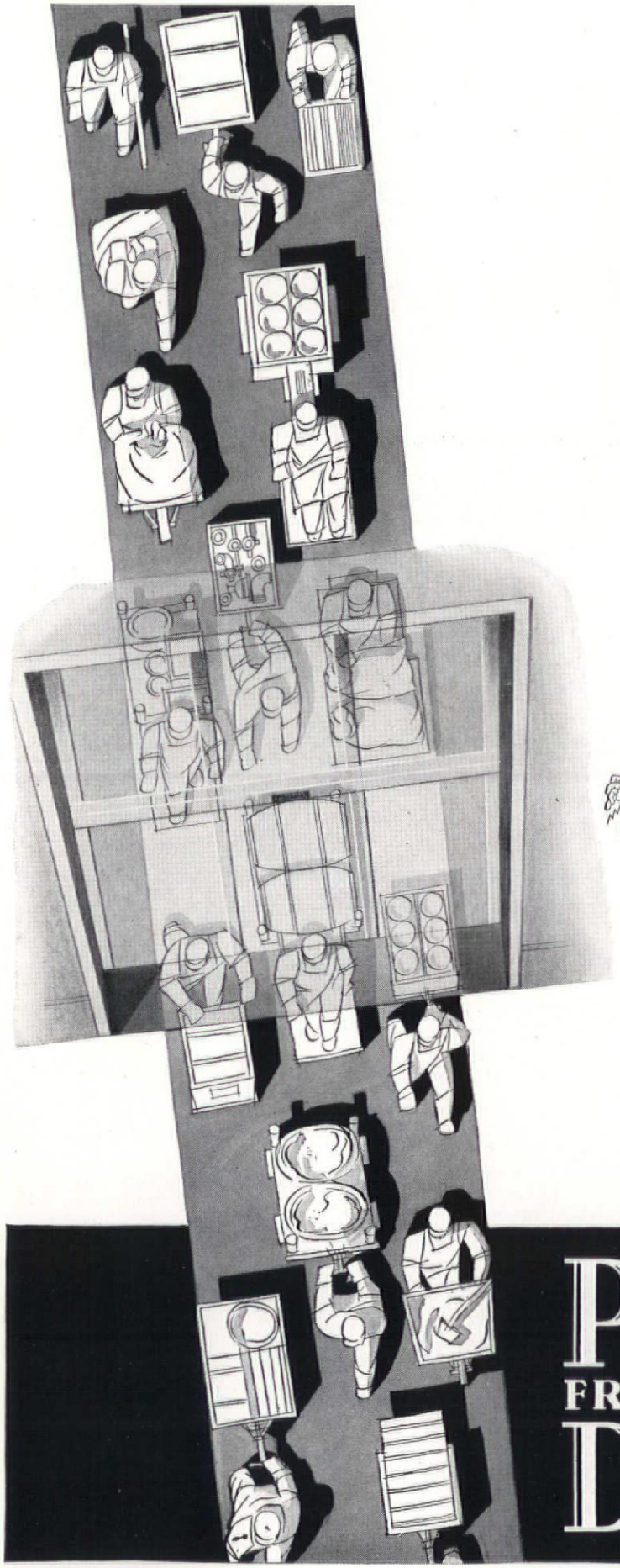
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Chicago, Illinois

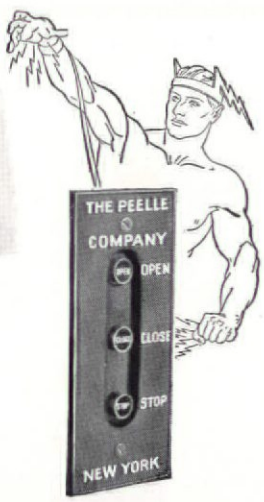
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THE DOORWAY OF AMERICA'S FREIGHT ELEVATOR TRAFFIC



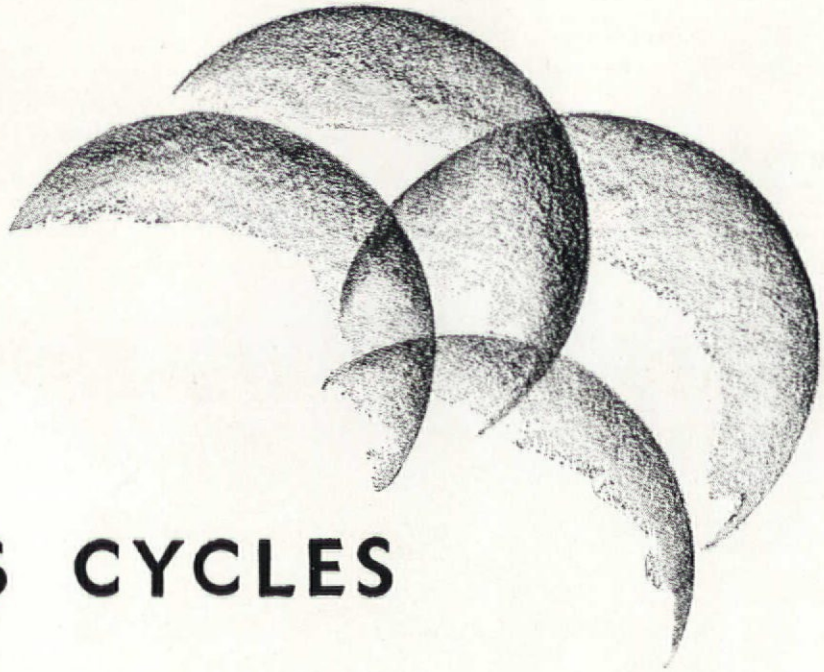


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DOORS



CEASELESS CYCLES



An increase of 15% in bearing space results in an increase of 25% in the life of the 1930 NORTON DOOR CLOSER. And the NORTON has long been famed for its exceptional durability! ▲ ▲ This increase in bearing space is not the only feature which makes the NORTON long-lived. An ingenious packing nut, developed in our own research laboratories, absolutely eliminates any possibility of leakage. And a new spring, of specially tempered steel, is far stronger and more resilient—doing its share toward achieving the NORTON ideal . . . ceaseless cycles of completely trouble-free service ▲ ▲ NORTON has achieved that ideal. The largest individual manufacturer of door closers in the world, theirs is a specialized product. Architects everywhere specify NORTON for continuously perfect door closer comfort.

See Sweet's, pages B 2408-2412

NORTON DOOR CLOSER COMPANY
Division of The Yale & Towne Mfg. Co.
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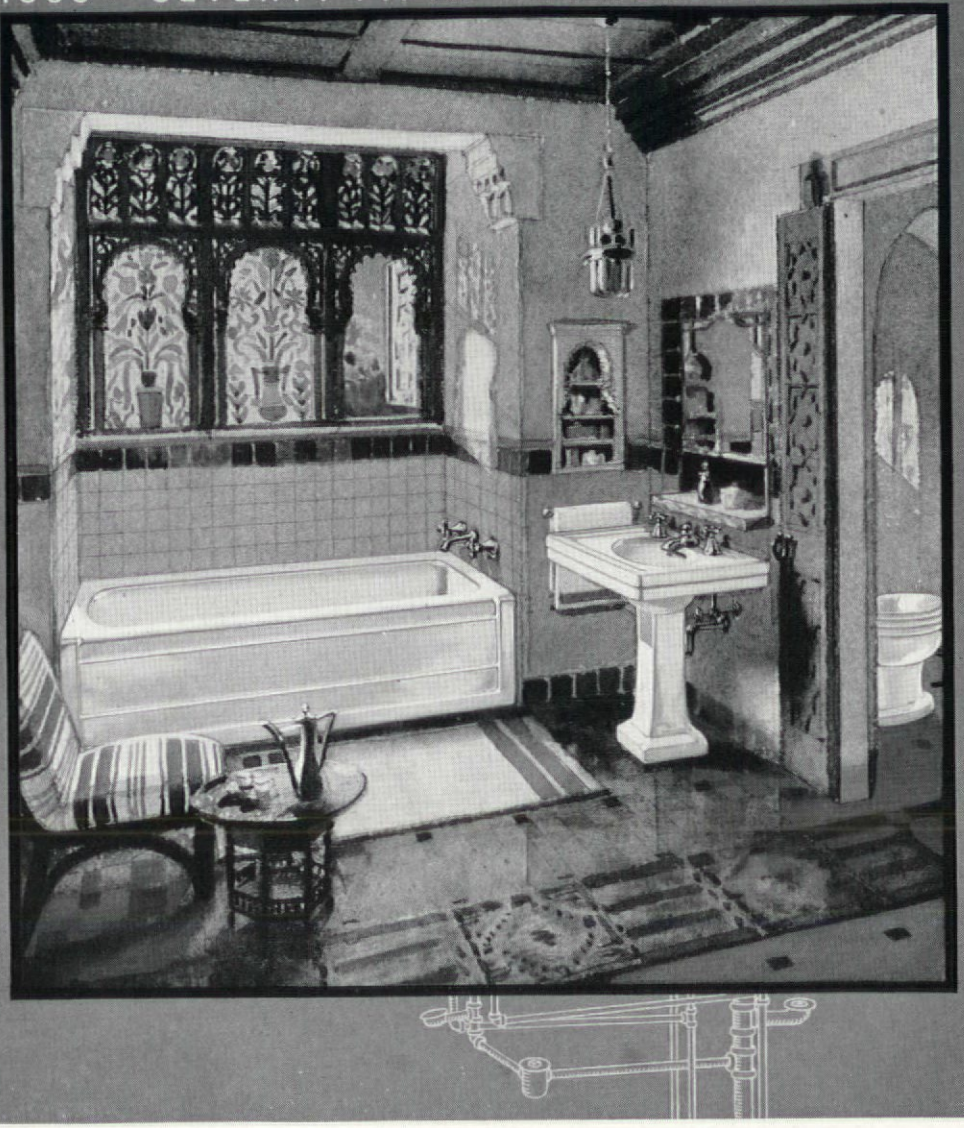


BILLIARD ROOM AT THE CHICAGO CLUB

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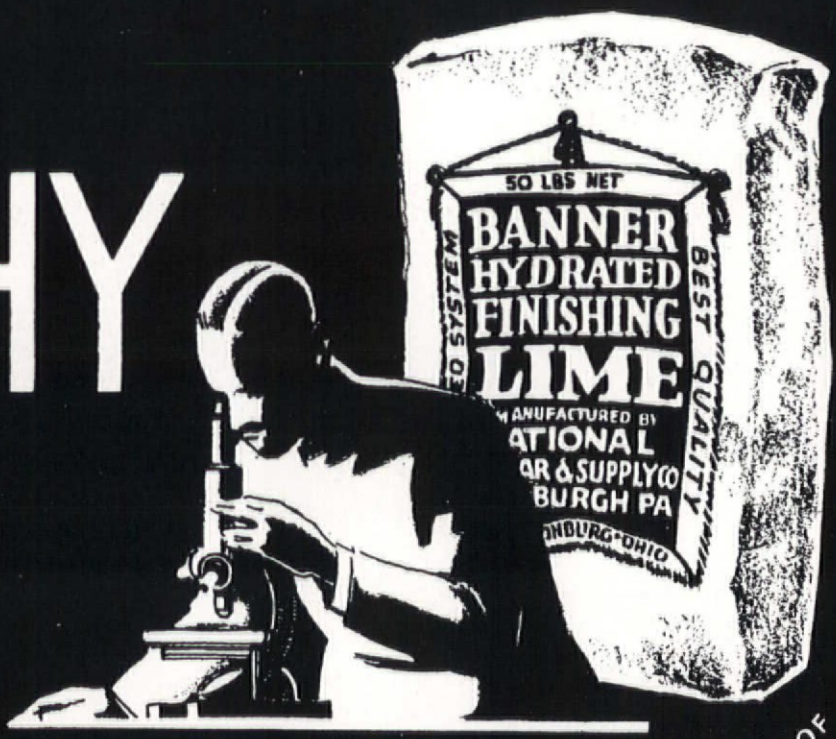
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Banner Lime
FAMOUS OHIO FINISH

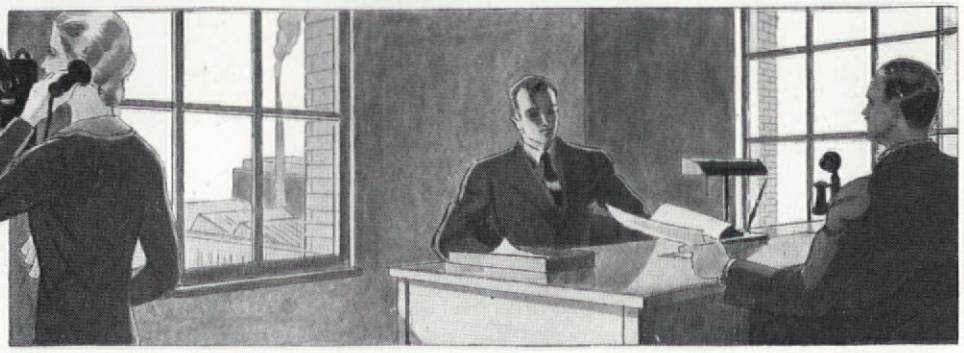


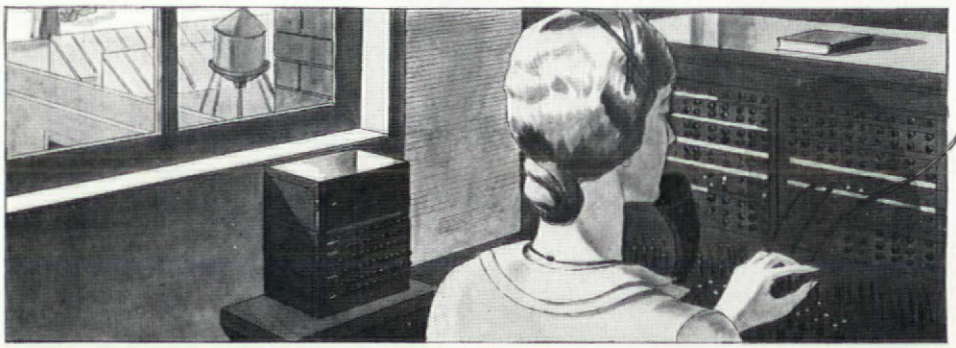
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"Fire! -quick"

"Look up that memo"





"Jones, report to main office"

"12 o'clock!"



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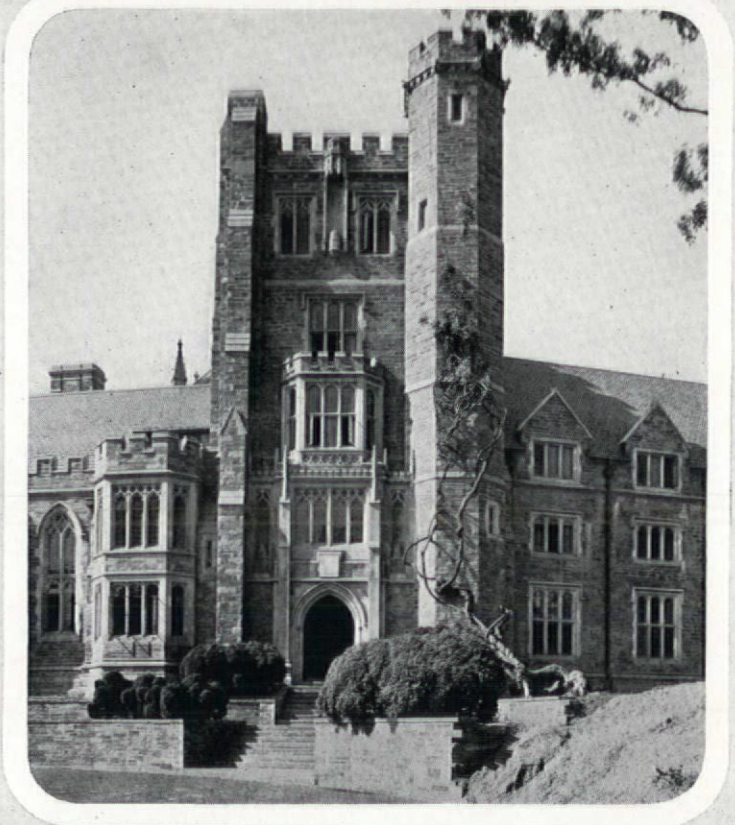
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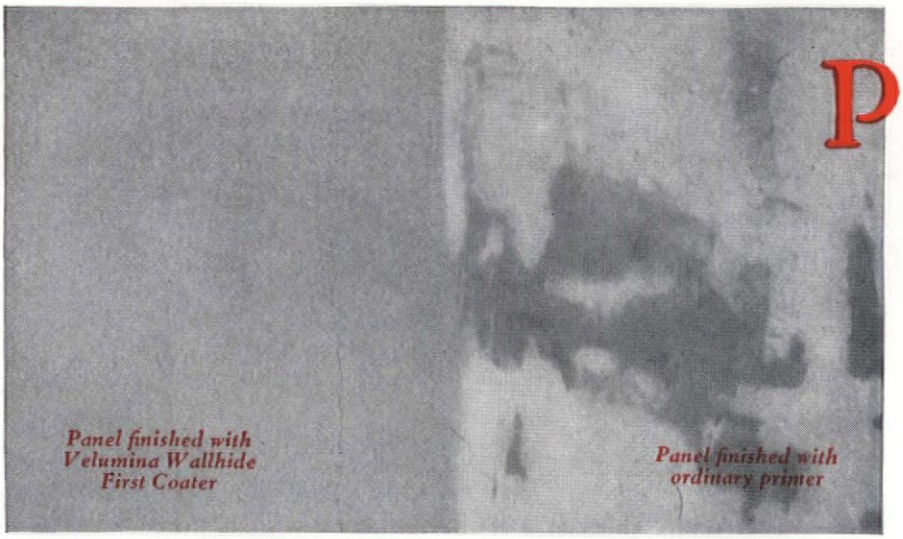
FROHMAN, ROBB & LITTLE
Architects

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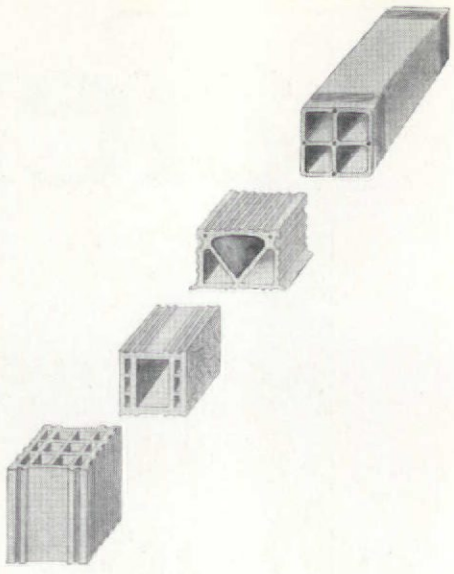
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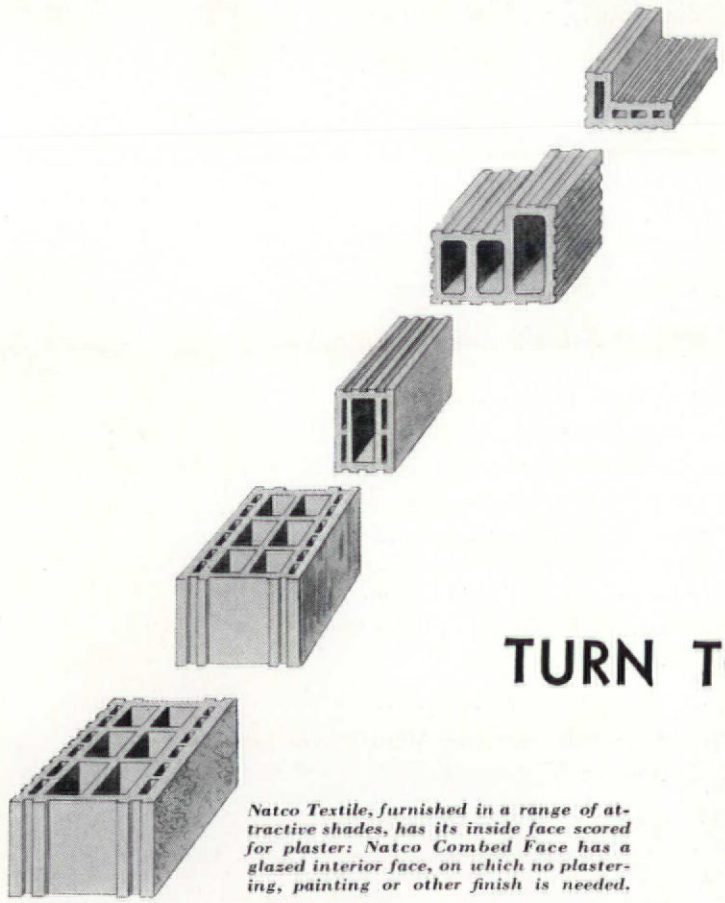
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In industrial buildings, garages, small homes and similar structures, Natco Textile and Natco Combed Face Tile afford ample opportunity for appealing architectural treatment, give the finest masonry construction at low cost.

Each unit laid forms a section of a wall that is insulated against the passage of heat and cold; that has moisture stops in all joints; that is fire-safe; that is permanent, never requiring painting or repairs. Color plates, and data on shapes, sizes, and so on, gladly furnished.

TURN TO SWEET'S



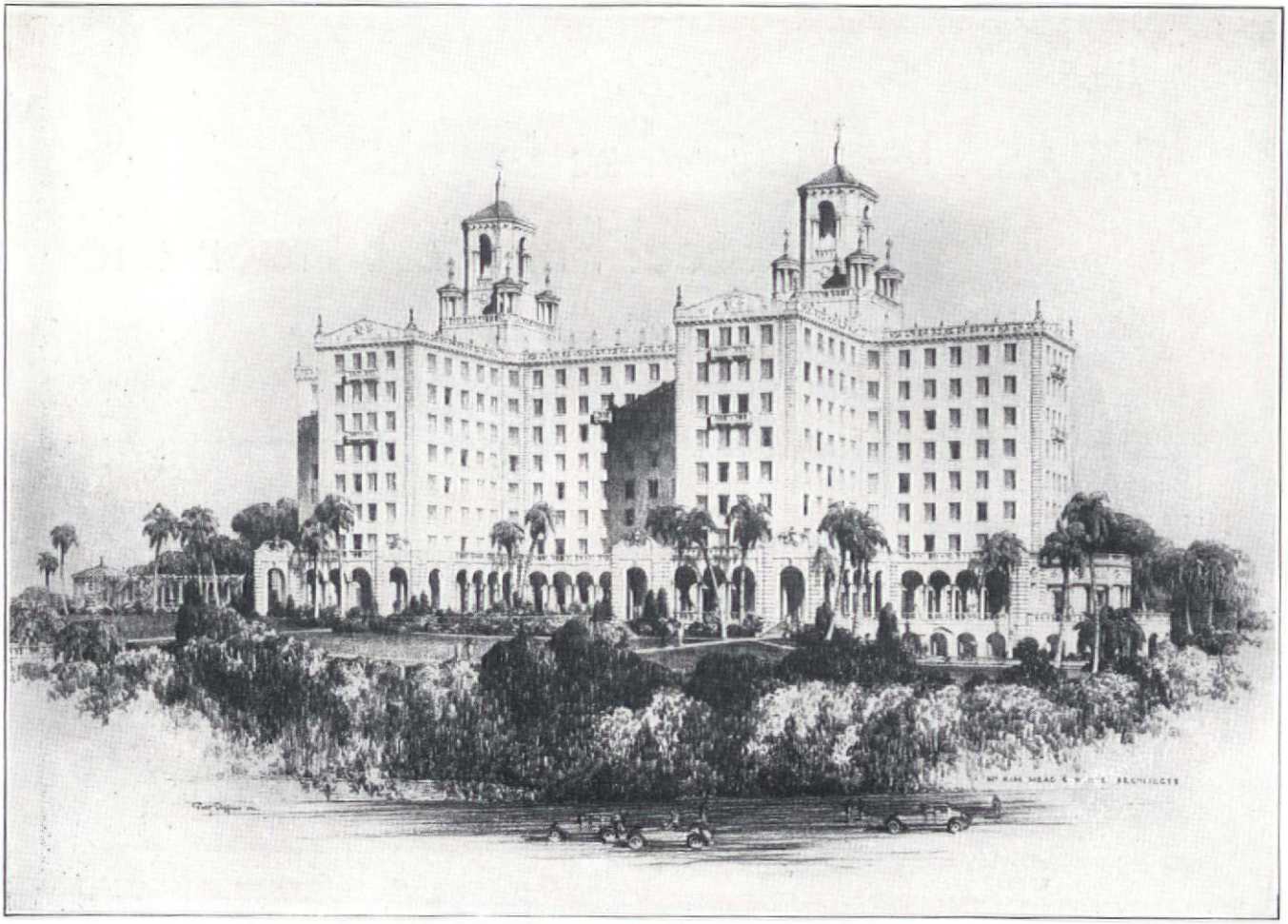
Natco Textile, furnished in a range of attractive shades, has its inside face scored for plaster: Natco Combed Face has a glazed interior face, on which no plastering, painting or other finish is needed.

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See page B-1981 SWEETS

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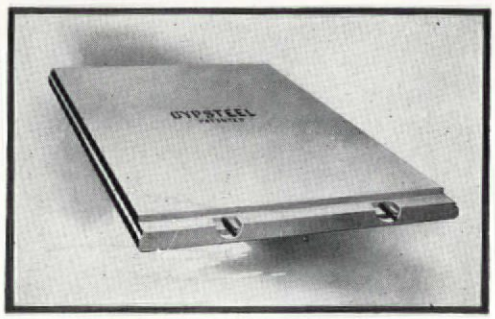
Our lime is marketed under four brand names—Ohio, Hawk Spread, Woodville, Buckeye. All are of equal quality—all are packed in Red Zig Zag Bags

YOU ASK — Just what is this Gypsteel Pre-Cast Floor and Ceiling Construction?

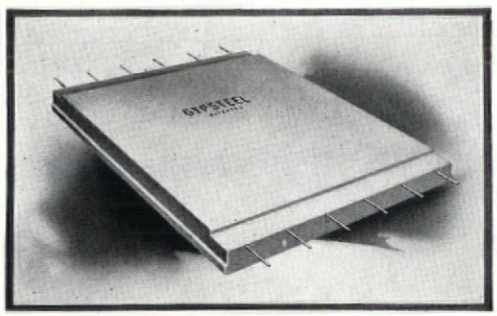
BRIEFLY, it's this: Pre-Cast gypsum slabs 2″ thick are suspended by fireproofed hangers from steel floor members, and joints are grouted, to form the ceiling. Re-inforced Pre-Cast gypsum floor slabs 2½″ thick are placed on top of the steel members, and joints grouted to form an unbroken floor, ready for fill and for finish.

In the case of the floor slabs, projecting steel rods of adjacent slabs are tied together and imbedded in a gypsum grout, giving in effect a monolithic floor slab.

Where webs and flanges of girders project below ceiling slabs, they are fireproofed with Gypsteel Pre-Cast Soffit slabs, and by plastic gypsum or Haunch slabs.



Ceiling Slab, suspended by hangers from floor members.



Floor Slab, tied together on top of floor members.

NO FORMS • ANY WEATHER • NO WAITING

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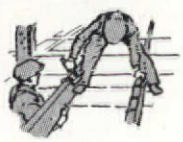
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GYPSTEEL

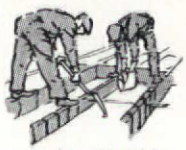
PRE-CAST FLOOR CONSTRUCTION



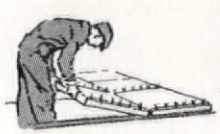
Hanging ceiling slabs



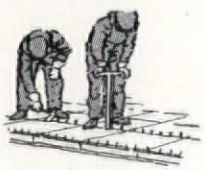
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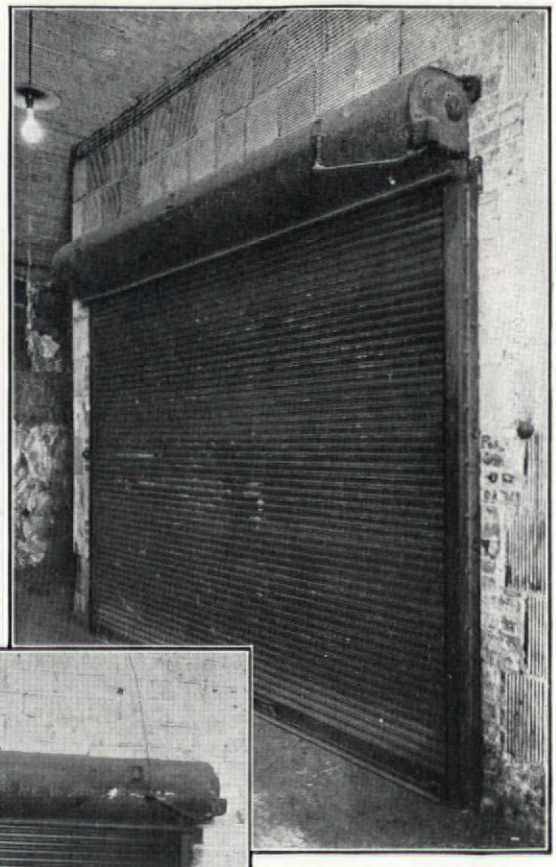
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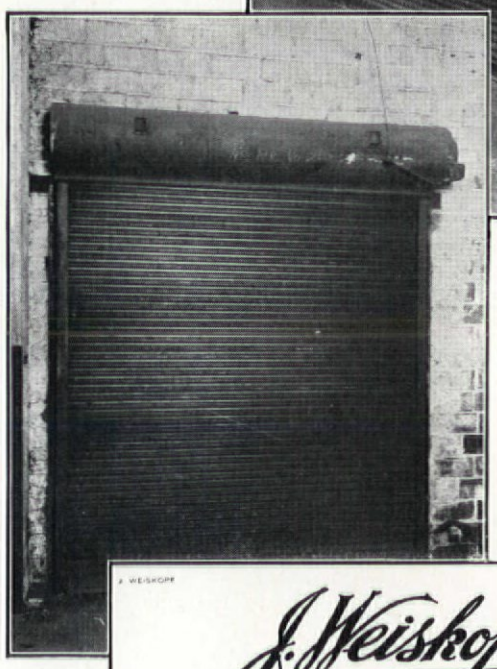
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Unretouched photographs, taken April 8th, 1930, of the Kinnear Automatic Rolling Doors installed in the Weiskopf Building in 1912, as they appear after eighteen years of continuous service and fire protection duty.

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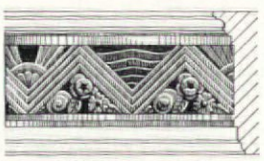
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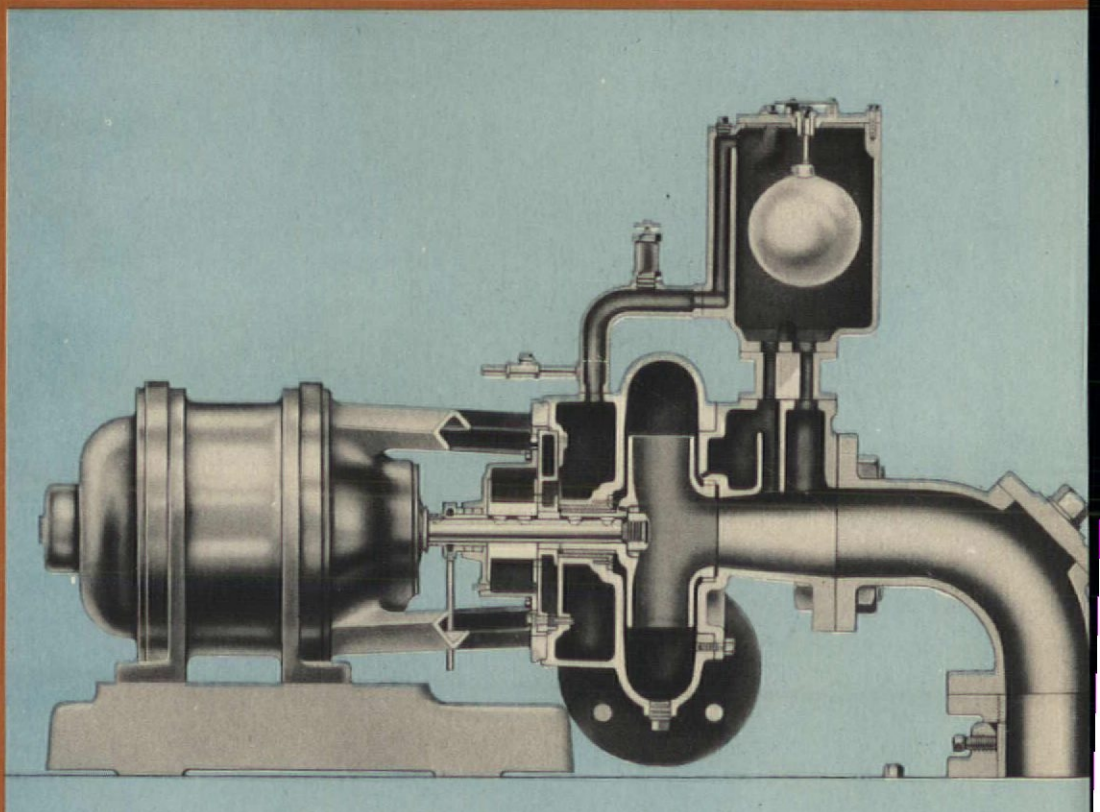
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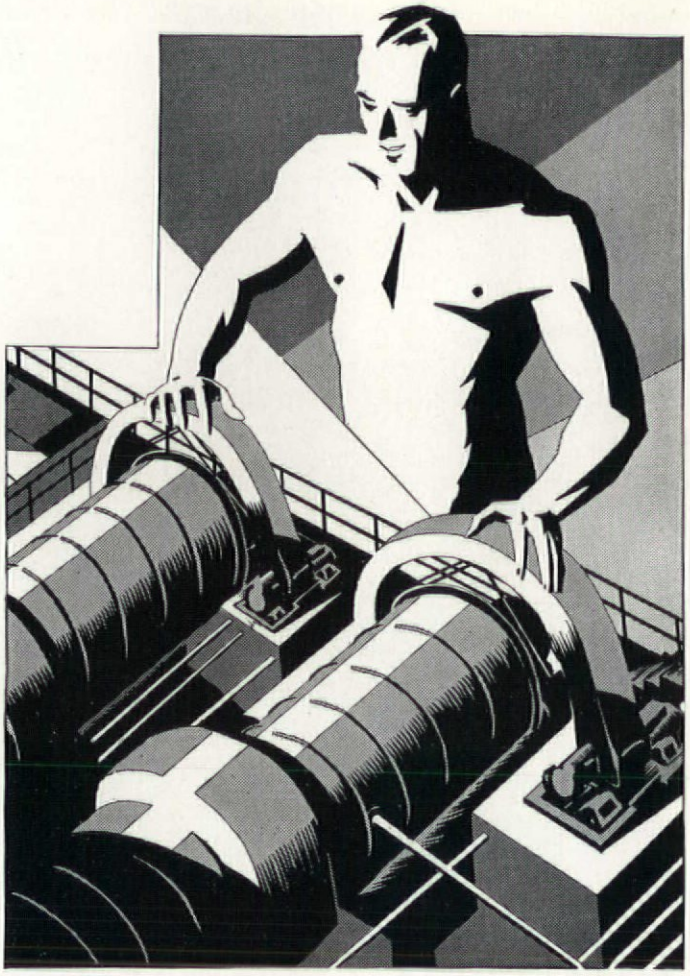
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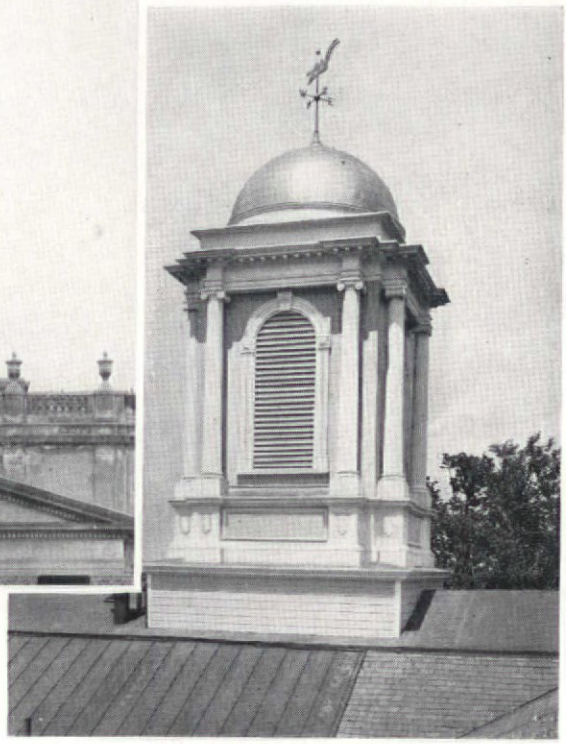
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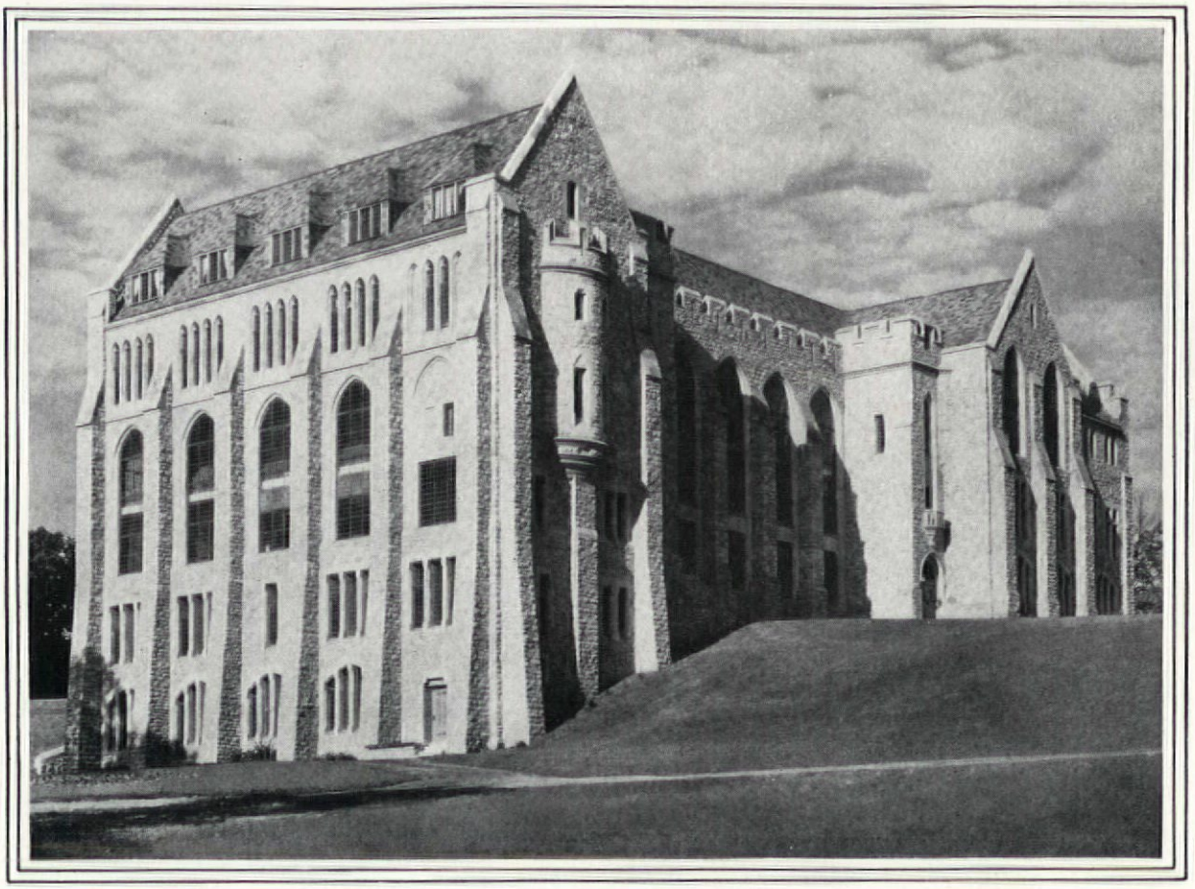
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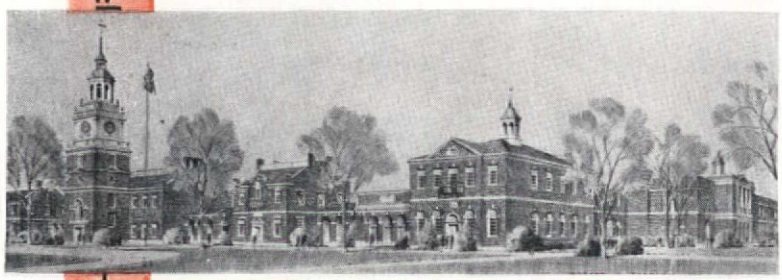
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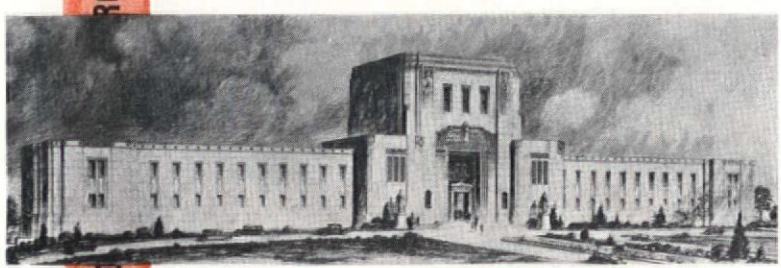
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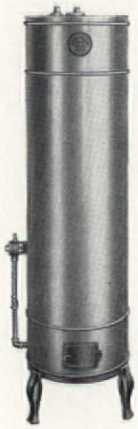
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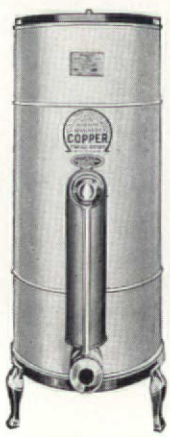
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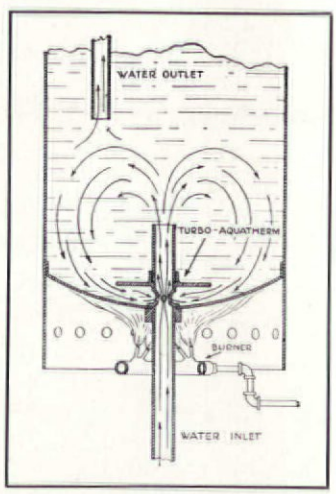
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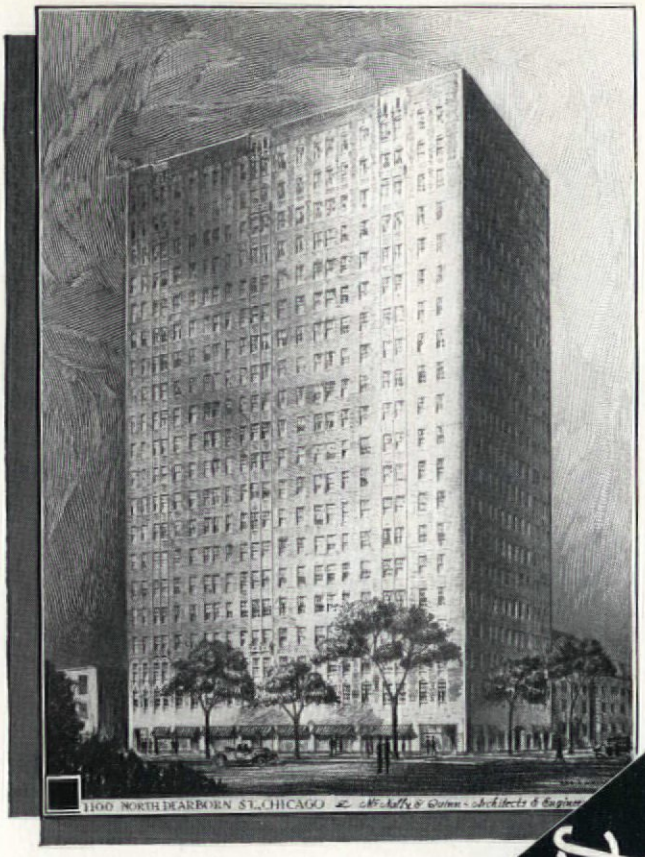


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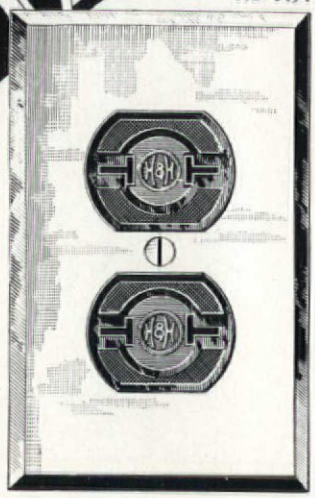


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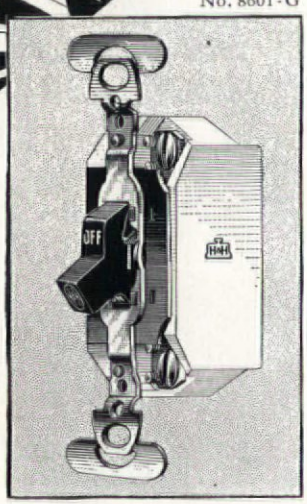
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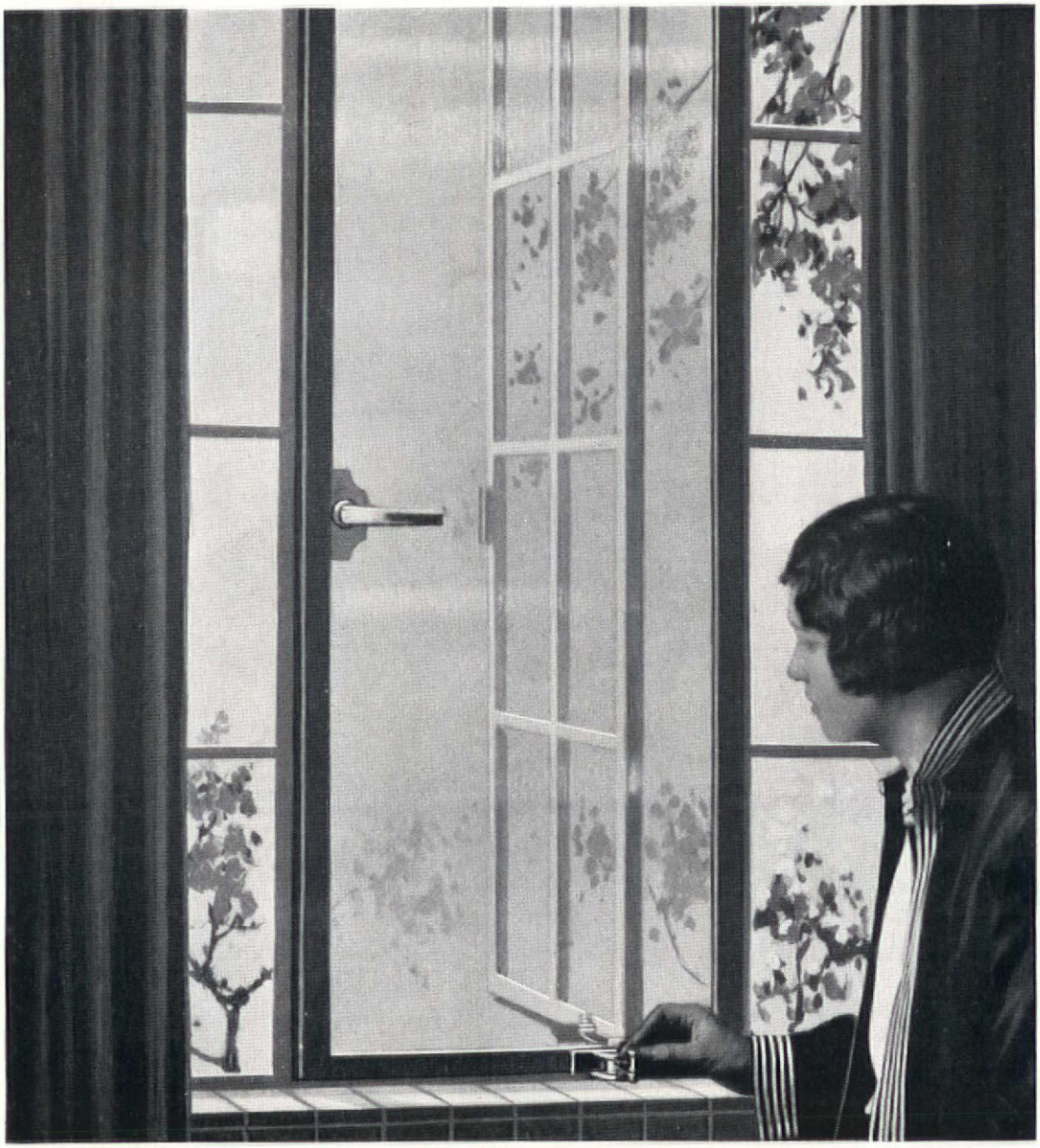


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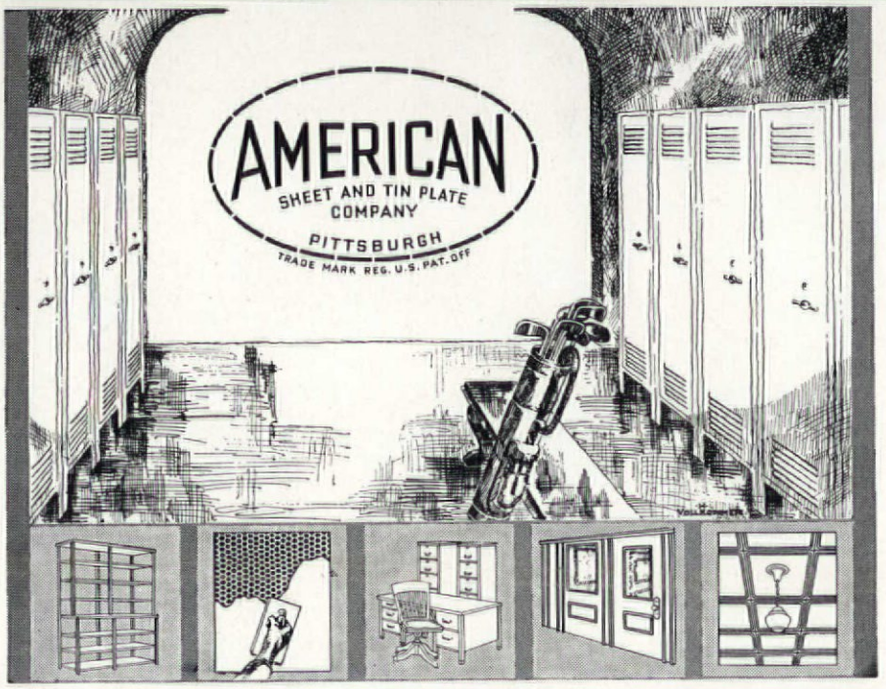
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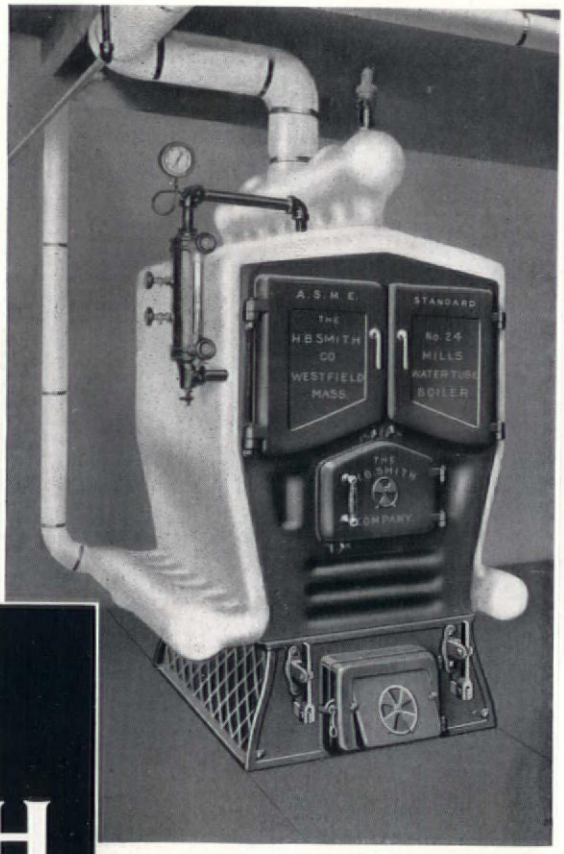
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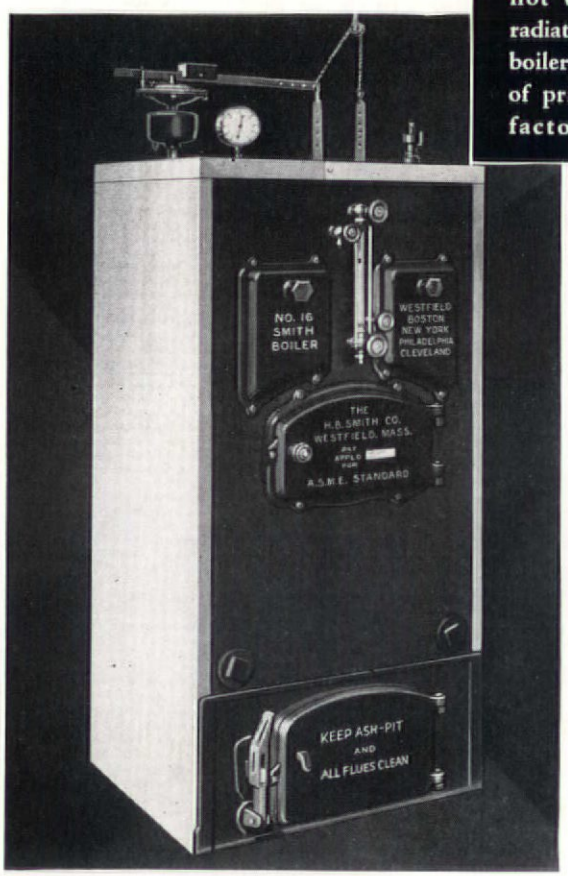


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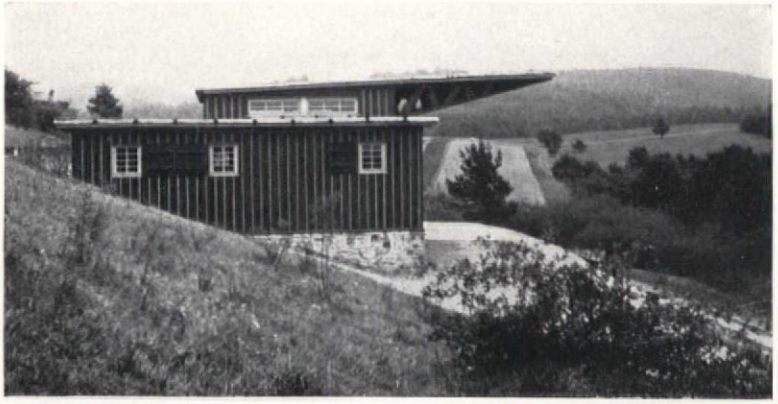
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H. H. Sherman, *Secretary*

GRANITE

FEATURED IN THIS ISSUE •



WEEK-END HOUSE BY KARL MEINHARDT, ARCHITECT

THE WEEK-END HOUSE
Pages 177–192

The week-end house is more than a sentimental stage setting. In addition to giving specific data to the architect who is occasionally called on to do this type of work, this Technical News and Research article suggests the possibility of further experimentation for the development of a dwelling which will be within the reach of the average wage earner.

HOW SMALL A HOUSE —OR APARTMENT?
Pages 131–137

The MINIMAL HOUSE solution by Le Corbusier and P. Jeanneret shows an amplification of the typical kitchenette apartment layout. The plan, it will be observed, is based on the principle of double-utilization of rooms, both by day and by night—which also distinguishes the "efficiency" apartment. In most apartments little consideration is given to children. In the MINIMAL HOUSE accommodations are provided for as many as four children in each family. For these reasons it is felt that this particular scheme offers a special interest to those architects engaged in apartment house planning who are seeking to conserve floor area.

TERMINALS? • TRANSFER!
Pages 99–106

An airport like any other link in the modern network of transportation, should be designed not as a terminus but as a transfer, according to Richard J. Neutra, architect. With plans and a model he illustrates his point that on leaving the planes both travelers and freight should be easily, rapidly and inexpensively directed into the other transportation lines of the regional traffic system. The article is supplemented by views of the airport at Hamburg, Germany, showing this relationship of air transportation with other modes of travel.

ARCHITECTS' OFFICES
Pages 140–158

In his own office layout the architect designs and plans to please himself. What he thus evolves becomes for his clientele an example of his architectural ability—in effect, an advertisement. For suggestions in arrangement and equipment this portfolio has been prepared for architects who are revamping their offices or considering new quarters.

A PREVIEW
●
SEPTEMBER ISSUE



RESTAURANT IN LOS ANGELES, J. R. DAVIDSON, DESIGNER

TECHNICAL NEWS AND RESEARCH
●
RESTAURANTS
COFFEE SHOPS
CAFETERIAS

The subject of coffee and tea shops is highly specialized and technical. It is almost impossible to formulate rules for planning and designing restaurants. Every job is different—not superficially, but fundamentally—in that the patrons, the location, the size and shape, the type of eating place, and so forth, are all factors of utmost importance, and without consideration of which no scheme can be successful.

The first part of the article is therefore a general treatment of the problems confronting the architect, giving many helpful hints on subjects hitherto untouched. In the second part of the article the investigators outline as a summary the more technical requirements of the kitchen and equipment.

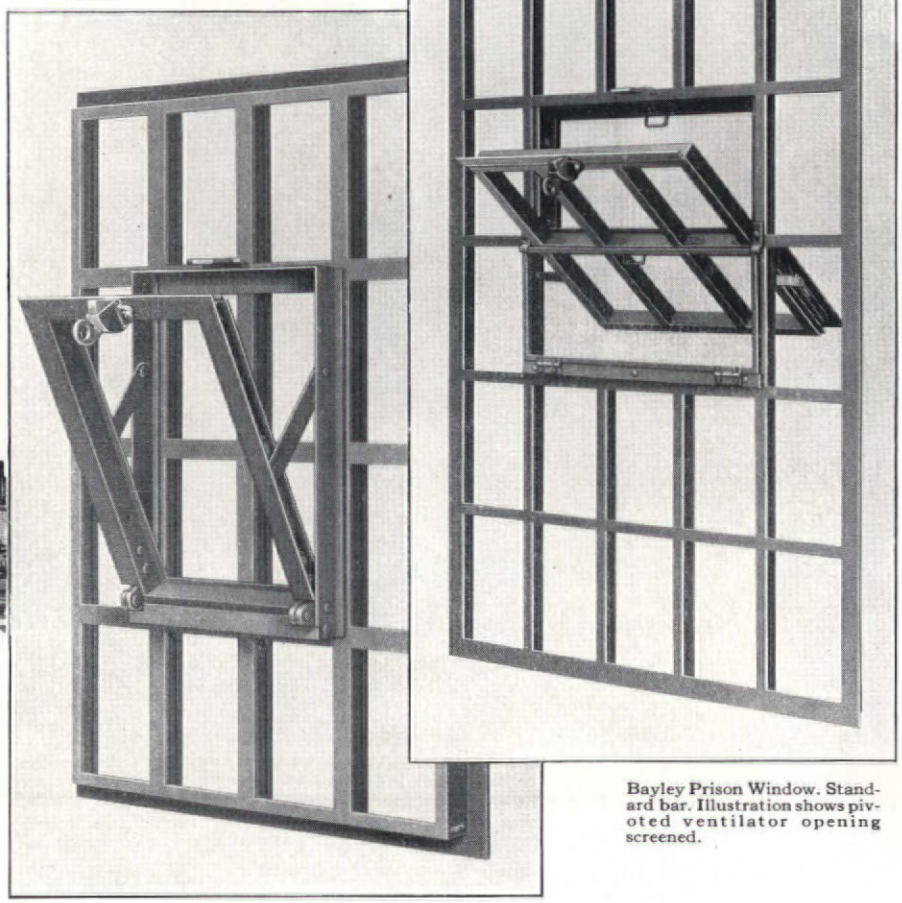
Feeling that it is the architect's duty to follow the trend of development in the types of buildings he designs, the writers have noted the recent popularity of the light lunch counter, sighting its disadvantages as well as its advantages. The restaurant service in the Pennsylvania Railroad Station in New York City is a striking example of what the public wants. The waiter-service restaurant on the south side is almost always empty while the counter service on the north, a few steps away, is always busy.

Supplementing this study will be a PORTFOLIO of illustrations of cafeterias and restaurants.

WHAT METALS TO USE?

What are stainless steel, Allegheny metal, duralumin, Monel metal, white metal, and all the other new building materials coming into increasing use? A comparative table of facts concerning these has been prepared by the Research Division of the Record for use by architects.

Bayley Prison Window. Super bar. Horizontal and vertical bars are continuous through ventilator opening. May be screened when desired.



New York City's House of Detention for Women, equipped throughout with Bayley Prison Windows Screened. Architect, Benjamin W. Levitan. Associate Architects, Sloan & Robertson. Contractors, Psaty and Fuhrman, New York.



Bayley Prison Window. Standard bar. Illustration shows pivoted ventilator opening screened.

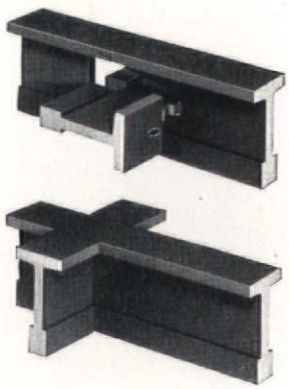
The Answer To a Pressing Need...

Bayley Windows *for* Penal Institutions

IN developing windows for penal institutions, Bayley has again pioneered. This organization of engineering and other well-balanced talent reviewed conditions and anticipated the present emergency. As a result, Bayley's offering in prison windows adequately meets present needs.

Cooperating with prison architects and prison officials, these windows have been designed to give an abundance of light and ventilation, and yet are as nearly escape-proof as modern steel construction can make them. They make outside bars unnecessary, and do away with the jail-like appearance of the buildings.

A nation-wide program of new prison building is under way. Prison board officials and architects interested in prison construction are invited to avail themselves of Bayley's helpful engineering cooperation—based on more than forty-nine years of practical experience. Your request for further information and illustrated literature will have prompt attention. The William Bayley Co., 132 North St., Springfield, Ohio.



This illustration shows Bayley Super Bar intersection. One-third actual size.

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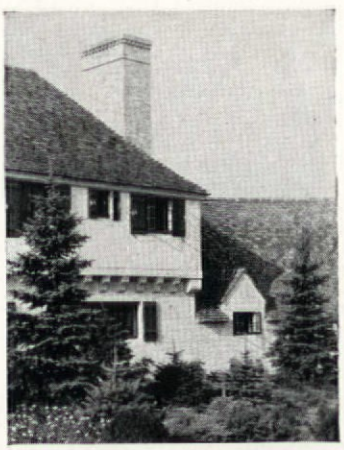
BAYLEY
STEEL WINDOWS & DOORS



The summer home of Mr. William F. Ladd, Southampton, Long Island, N. Y. Peabody, Wilson & Brown, Architects.

OCCASIONALLY, in our travels, we come upon a home which seems to have been designed and built in complete accord with the setting nature has provided. One of these overlooks the ocean from the sandy slopes at Southampton, Long Island. Its lines are free from restraint —a quality which extends even to the material of which it is built.

Portland cement concrete was chosen because, of all durable and firesafe materials, it was most easily available. Also, it afforded the architect a versatile material with which to vary the wall treatments in harmony with the design. Whether the surface was to be curved or flat, rough or smooth, patterned or plain, colored or "natural", concrete was easily fashioned and tinted to the precise requirements.



Exposed to the full force of ocean storms, these rigid, impenetrable walls of concrete are a constant safeguard against damage and consequent repair costs.

The result is an exterior of unusual interest—rigid, durable walls that defy wind, weather and fire—and costs, both of building and maintenance, that are most attractively moderate. As a complete building material, concrete offers the home builder unlimited possibilities.

PORTLAND CEMENT *Association*

Concrete for permanence and firesafety

33 WEST GRAND AVENUE
CHICAGO

A LEVIATHAN OF THE AIR

Under the wing of a giant Sikorsky twin-motored amphibian at the Long Island Aviation Country Club. This country club at Hicksville, N. Y., has its own clubhouse, hangar and flying field.



Photo. Ewing Galloway, N. Y.

THE ARCHITECTURAL RECORD

AN ILLUSTRATED MONTHLY MAGAZINE OF ARCHITECTURE & THE ALLIED ARTS & CRAFTS

VOLUME 68 AUGUST · 1930 NUMBER 2

TERMINALS?—TRANSFER!

BY RICHARD J. NEUTRA, ARCHITECT

Continuity must be considered the primary characteristic of traffic flow. Traffic consists in the movement of goods and persons. Changes of the vehicle are necessitated as the channel and speed of its flow are conditioned by geography and the density of interferences. But smooth continuity remains the principal requirement.

Traffic was once thought of as only *interurban*. A trip was *terminated* when the carriage arrived at its destination. The effort to reach a certain house or locality within that town was negligible. A modern community, in particular a metropolitan area, does not have a city wall or gate and it offers a difficult and specific traffic problem within because of its vast expansion. For the modern traveller, a long distance trip has to bring him not to an ultimate destination but to a link within a well arranged regional transportation system.

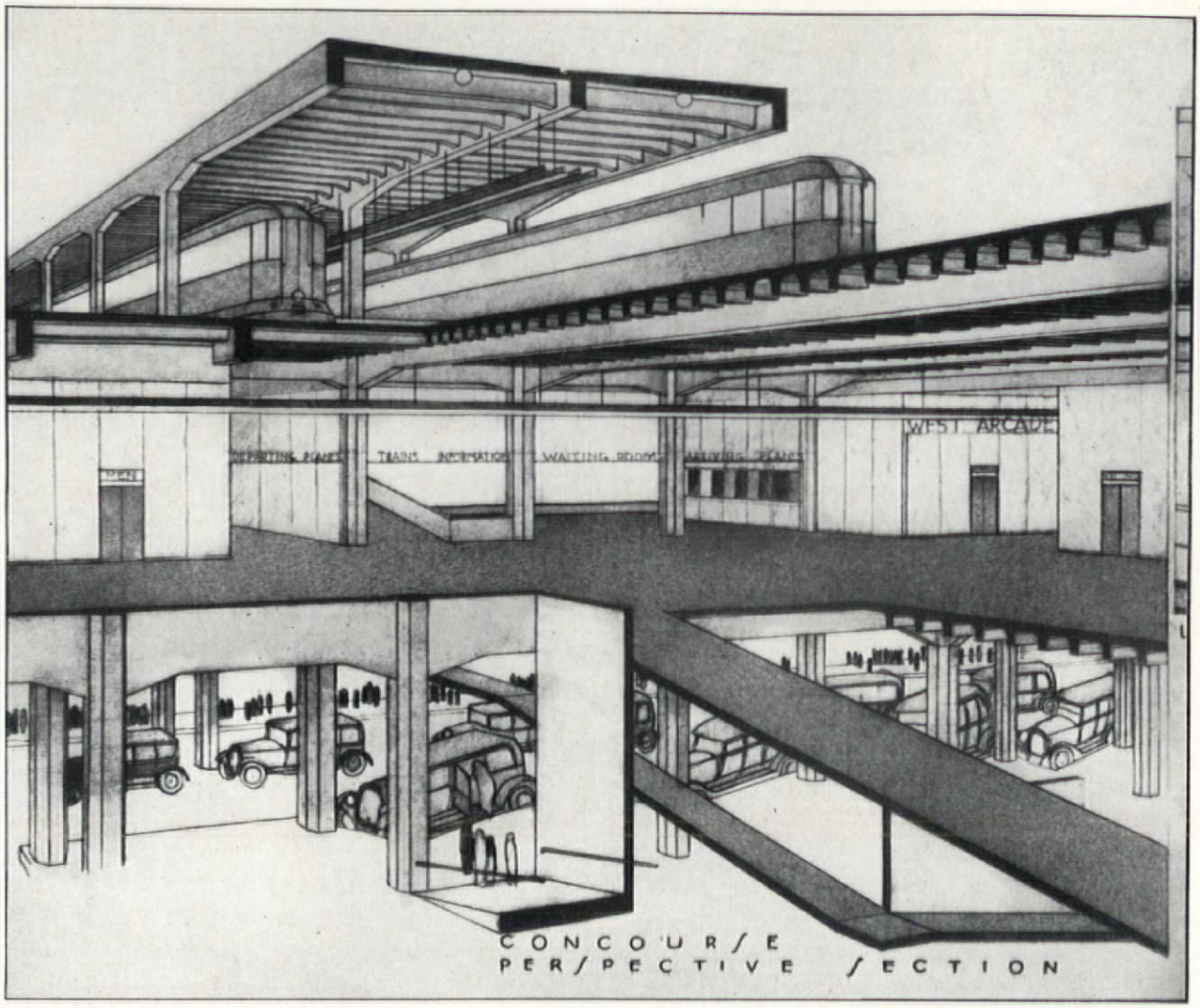
The idea of the nineteenth century was to recognize and acknowledge the railroad terminals as the new *city gates*. They accordingly were treated as architecture somewhat in the spirit of Sanmicheli. In the older capitals a plaza of representative character was also usually attempted in front of the depot, which made it pretty hard to articulate surface traffic lanes and frequently necessitated much walking and carrying of hand baggage from street car stops which were kept on the outside of this plaza.

The idea of the railroad depot as the new kind of a city gate, despite sacrificial money investments, proved a failure in Europe. It was a romantic transposition of an old concept into a set of new and hostile conditions. Very similarly one will find that in modern seaports the pier, the landing point of oceanliners, has not developed monumentally.

Terminals, representatively dressed up or plain, are altogether out of date.* The terminal idea is too much opposed to the necessary continuity of traffic flow. Through stations, junctions and beltlines are more adequate for the requirements of a modern region. The rapid transit and rolling surface traffic has to be brought side by side with the long distance tracks so that any monumental treatment crowded in between means only an undesirable obstacle.

With air transportation a new type of transfer point appears in the network of a regional traffic system: the so-called **airport.** Here similar mistakes are imminent and threatening early obsolescence of am-

* Neutra, *Wie Baut Amerika*. Jul. Hoffmann, Stuttgart. (pp. 7-12)



RUSH CITY AIR TRANSFER
Section through railway, grand concourse, and baggage room levels.

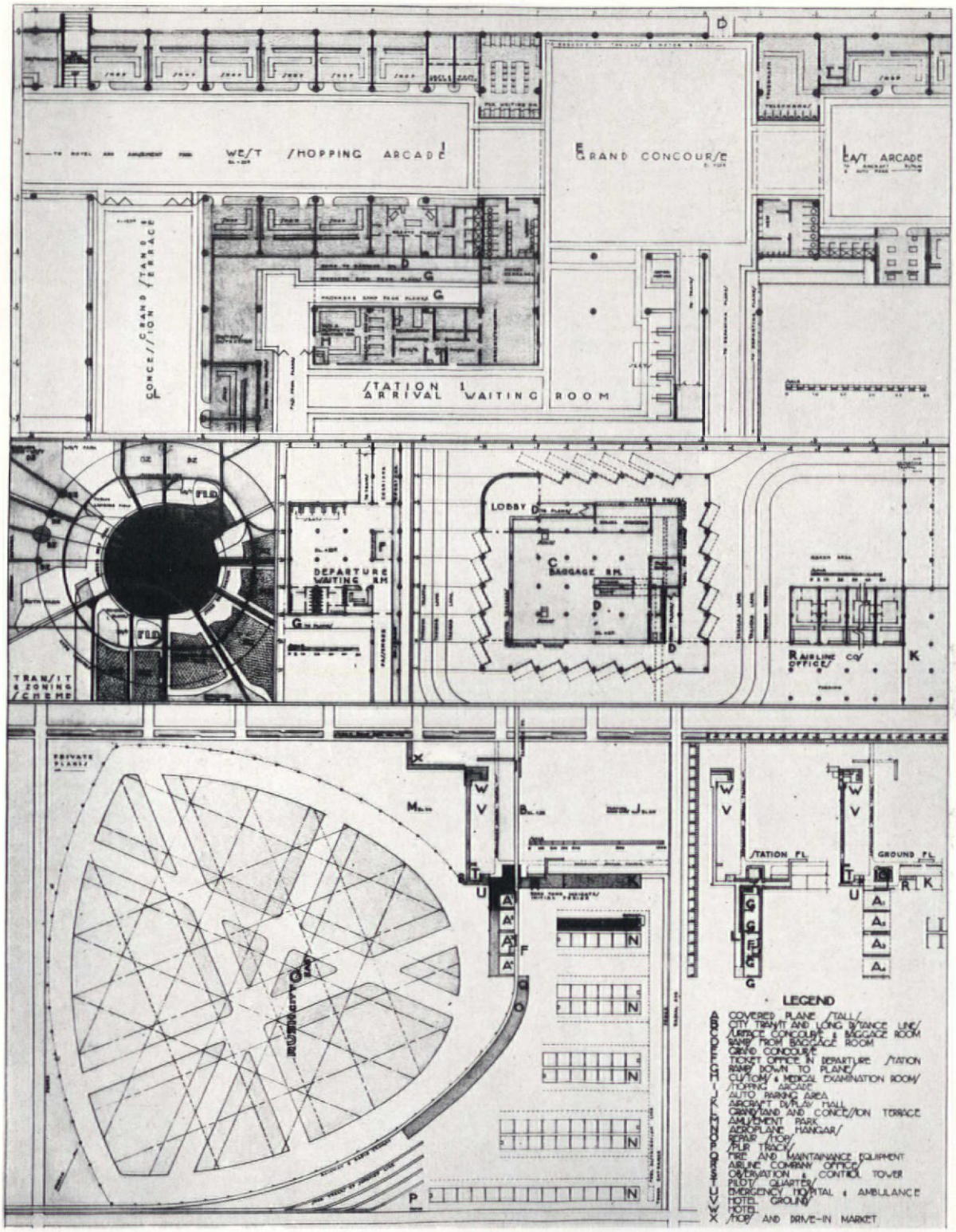
RICHARD J. NEUTRA, ARCHITECT, COLLABORATING WITH GREGORY AIN, DONALD GIFFEN, HARWELL H. HARRIS, AND RAGNHILDE LILJEDAHL

bitious investments as in the case of the railroad terminals.

At present an inefficient link between long distance air travel and regional traffic counterbalances the advantages of the former to quite an extent. Speed and fluidity in the transition from air to ground vehicle is what is needed more than a *grand court d'honneur* in front of an airport.

There is something static about the concept of a *port*. It seems to lack flexibility. What then is an airport? It should be a point where a specific kind of transportation stops. But freight and people go on being transported. They simply change their vehicle and this change should mean a minimum of time investment. It should be smooth, rapid and inexpensive. Not air-terminals and ports should be designed but rather through-stations and junction-points—*Air Transfers*.

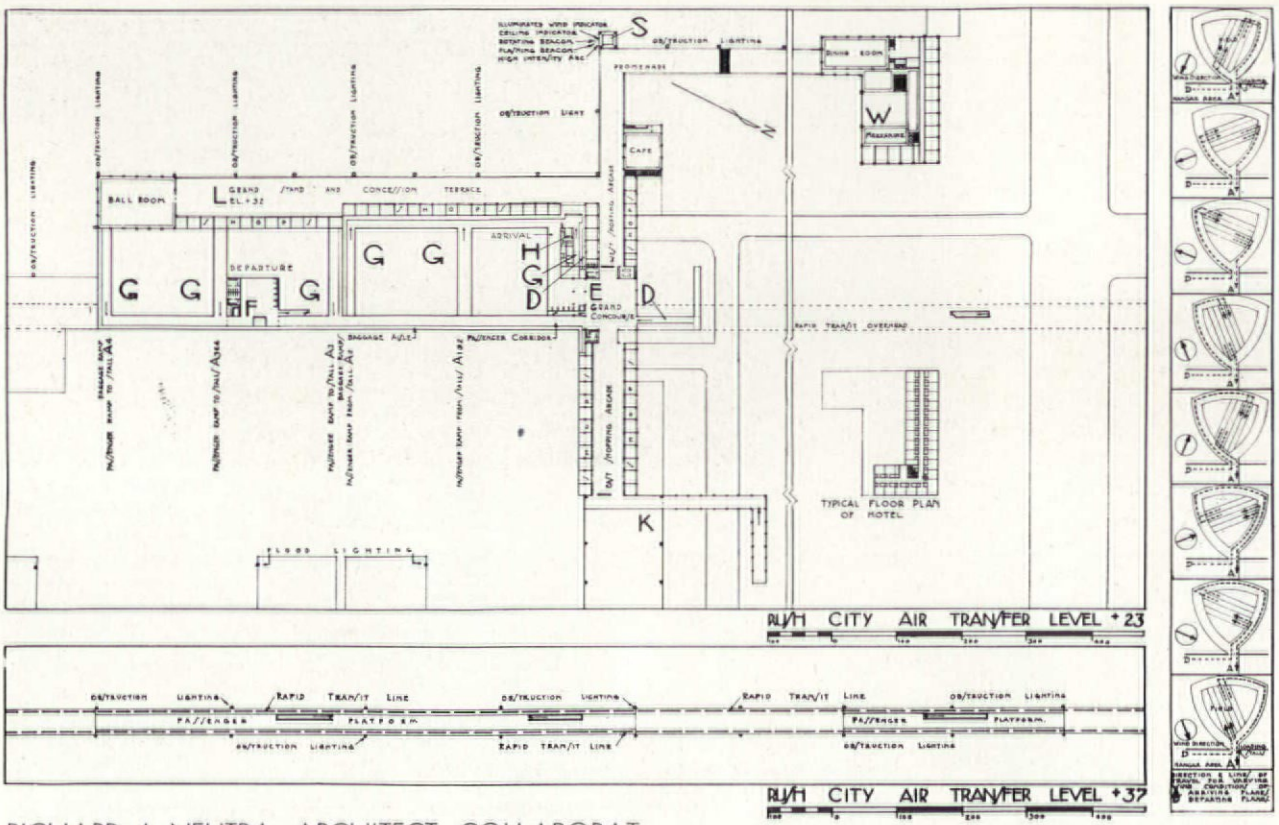
The project, *Rush City Air Transfer*, is founded entirely on the idea of seeing transportation as a whole and of providing for it as an interrelated whole. Certain primary and general assumptions seemed necessary. One was that because of land values a spacious air transfer would not be situated in the central part of the metropolitan area, but probably outside this zone, so that subway transit becomes a necessity. A desirable location would be within the green-



RUSH CITY AIR TRANSFER

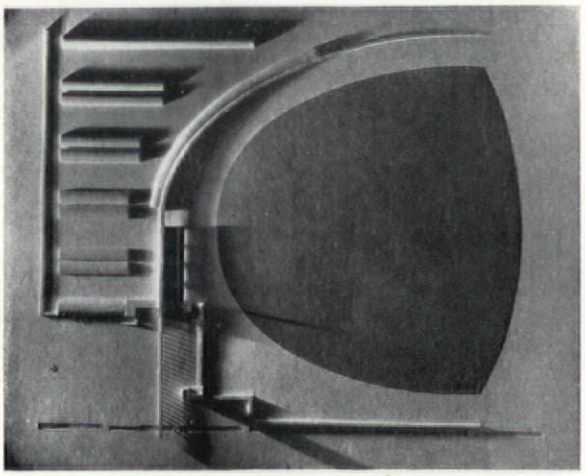
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RICHARD J. NEUTRA, ARCHITECT, COLLABORATING WITH GREGORY AIN, DONALD GIFFEN, HARWELL H. HARRIS, AND RAGNHILDE LILJEDAHL



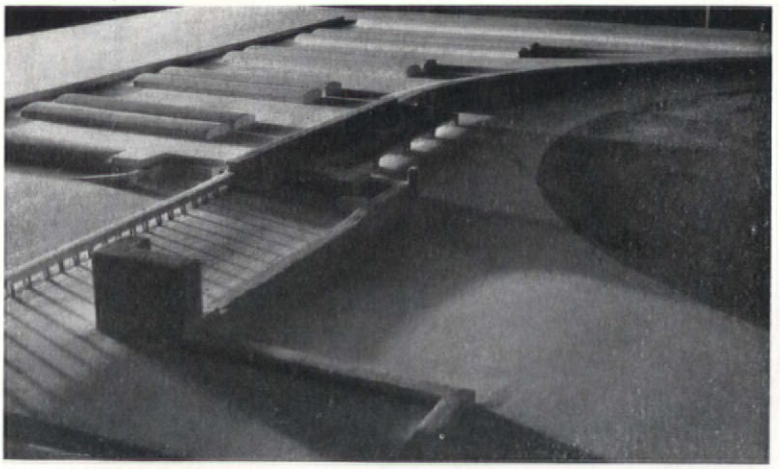
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RUSH CITY AIR TRANSFER
AIR VIEW OF MODEL



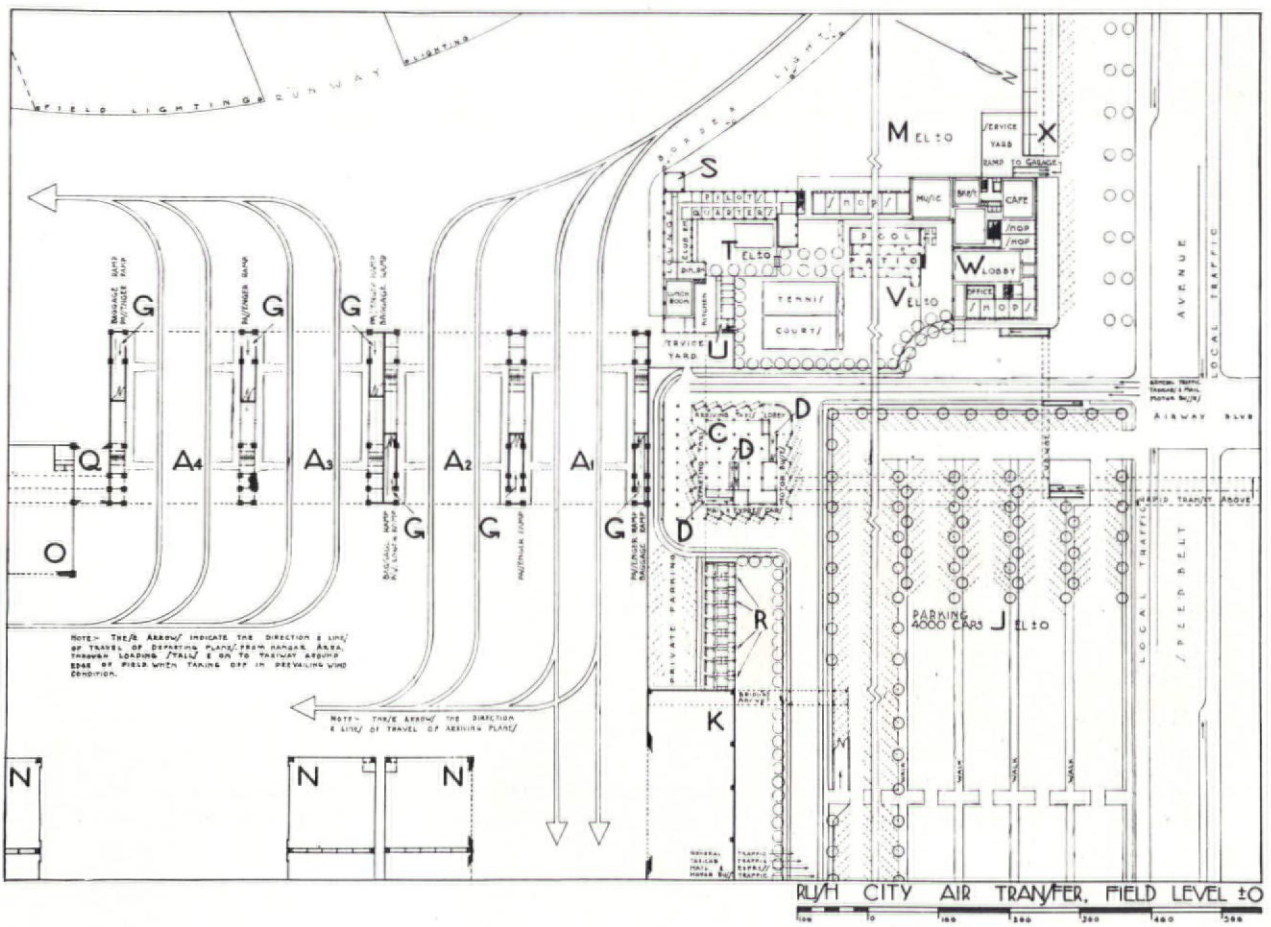
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RUSH CITY AIR TRANSFER
AIR VIEW OF MODEL

RICHARD J. NEUTRA, ARCHITECT, COLLABORATING WITH GREGORY AIN, DONALD GIFFEN, HARWELL H. HARRIS, AND RAGNHILDE LILJEDAHL



belt area surrounding the central core of the region zoned for business and central institutions.

The regional rapid transit is brought right over the spacious loading stalls of airliners, giving them at the same time a desirable protection during embarking and disembarking of passengers. Easy ramps connect the sidewalks of these stalls with main waiting rooms and the upstairs grand concourse as well as with the level of the metropolitan rapid transit traffic. On the other hand all tire vehicles enter the Air Transfer in traffic lanes especially assigned to the different types of conveyances: taxicabs, motor busses, baggage and mail trucks. They branch off Speedbelt Avenue and return to Radial Avenue. These vehicles stop at allotted places around their loading and unloading islands.

The main entrance lobby, with the baggage concourse, is centrally located around baggage elevators and ramps. From the lobby portion of this island easily ascended ramps lead passengers up to the grand concourse, lavatories, post office, writing and waiting rooms.

Thus this grand concourse twenty feet above the field level becomes the center of pedestrian traffic. It is therefore made the center from which revenue-bearing concessions radiate. Broad well-illuminated shopping arcades run in one direction toward the promenade overlooking the field, the cafe, the amusement park and the hotel, and in the other direction toward the aircraft display hall and the street bridge which connects this concession avenue with the spacious auto park.

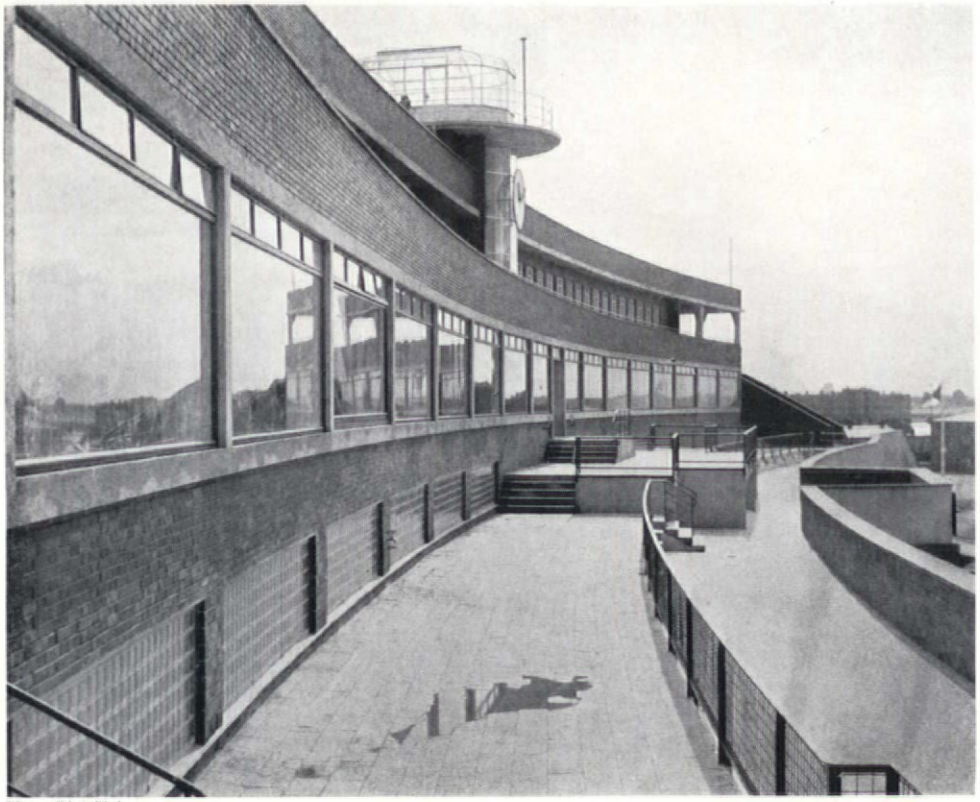
Whereas the number and size of the concessions depend largely on the desirable attractiveness of the field in the eyes of the pleasure seeker, the number and size of the actual transfer facilities ought to be based upon the volume and character of the traffic handled and that in turn is in a functional proportion with *size and shape of the landing and take-off area*. If this area satisfies the U.S. Department of Commerce requirements by providing at least one runway 3500 feet long in each direction and if, for instance, a triarc shape after Gavin Hadden is assumed, then the ultimate capacity of the field in simultaneous landings and take-offs is four and its capacity for one hour, allowing seven and a half minutes for the single operation, is thirty-two.

If the average number of minutes required for loading and unloading is taken as fifteen, then to use the given field to capacity, eight simultaneous loading and unloading facilities must be provided for. The number and size of other facilities depend upon the number of passengers handled, which is found by multiplying the estimated number per plane by thirty-two. Thus, in a way, the length of runway determines the extent of all developments needed for the efficient operation of this given field. As a matter of course such development can take place in subsequent periods, when actual need arises and financial means can be supplied.

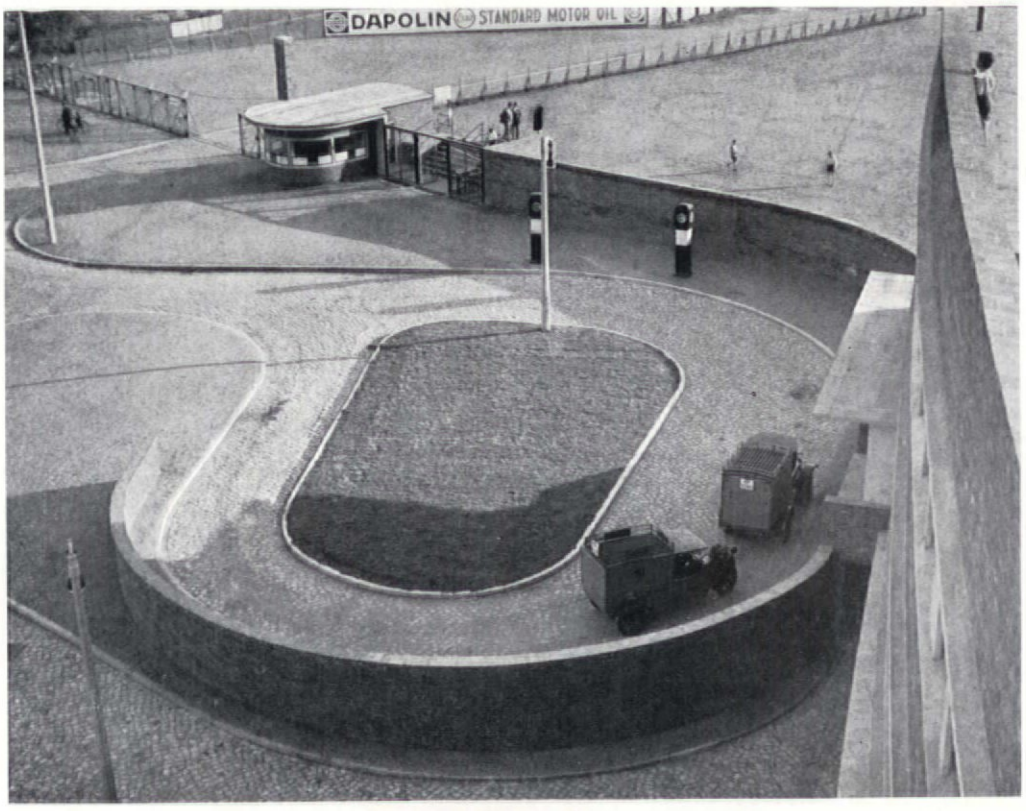
The arranging of the landing field on one side and the storage space of aircraft on the other of the double width loading stalls permits a definite and orderly routing of planes being taxied in or out. Centrally, in close reach from both sides, the fire and field maintenance department is located. The spur tracks of the electric junction railway branch into the hangar and repair yard where as many as 200 planes may be stored. By reinforced concrete vault construction the fire hazard is easily isolated in fireproof compartments and longer hangar units can be erected with safety and with saving of separating areas.

Briefly this is the case of *transfer* versus *terminal*. Certainly a stately forecourt, resembling perhaps that of Saint Peter's in Rome, would have undeniable monumental force and dignity, but it is doubtful if these qualities would be appreciated or desired by hurrying passengers who must pay for them with loss of time and energy and actual danger of injury from motor vehicles. Monumental design should be replaced by a more modest attitude until the problem in hand is practically well defined and solved.

AIRPORT AT HAMBURG GERMANY



Photos. Rheinländer



DYRSSEN AND AVERHOFF ARCHITECTS

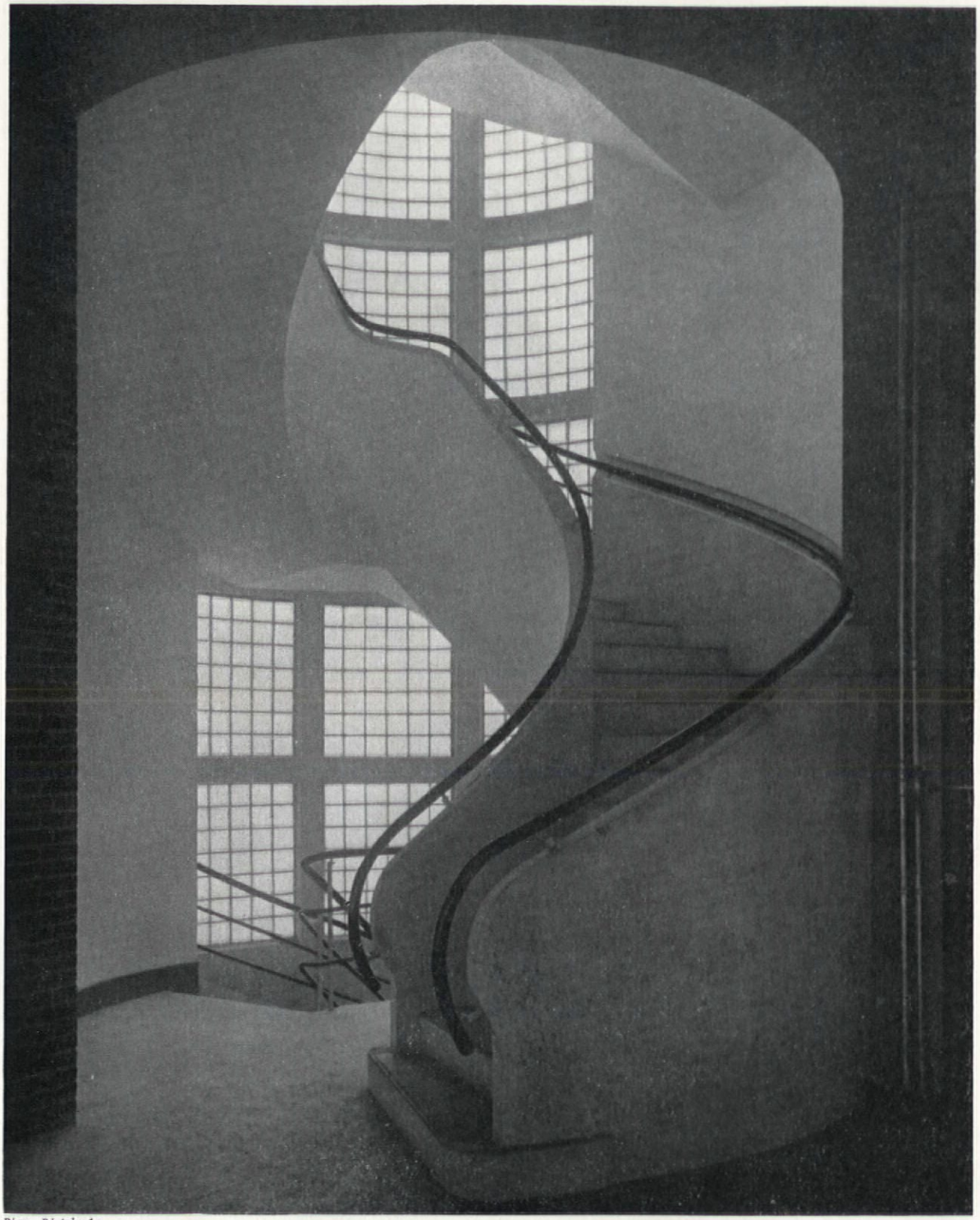


Photo. Rheinlander

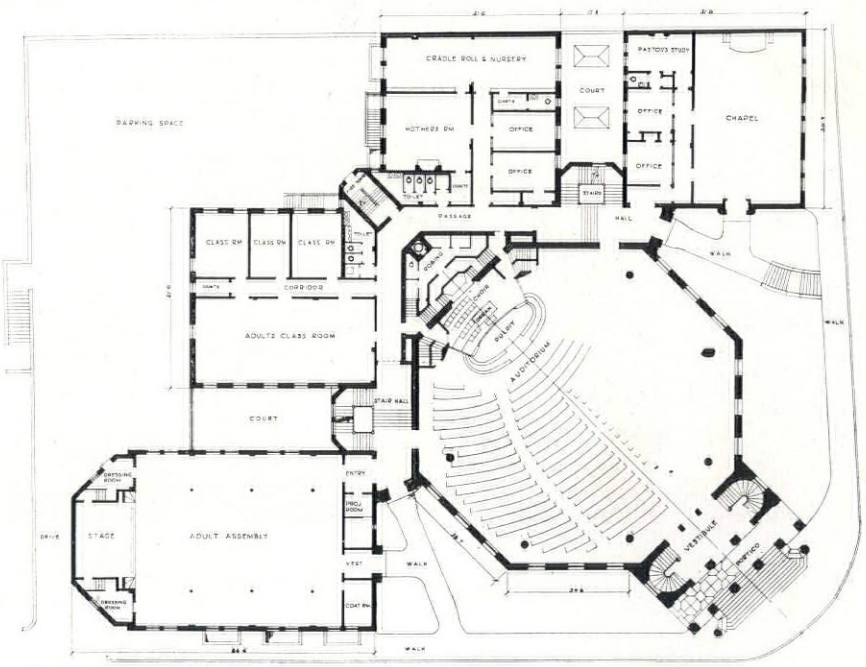
AIRPORT AT HAMBURG, GERMANY
DYRSSEN AND AVERHOFF, ARCHITECTS

THE FIRST BAPTIST CHURCH OF ASHEVILLE, N. C.

DOUGLAS D. ELLINGTON, ARCHITECT



Photo. Plateau Studios



FLOOR PLAN

The new First Baptist Church of Asheville is in actuality a group of five buildings which pyramid into a single structure.

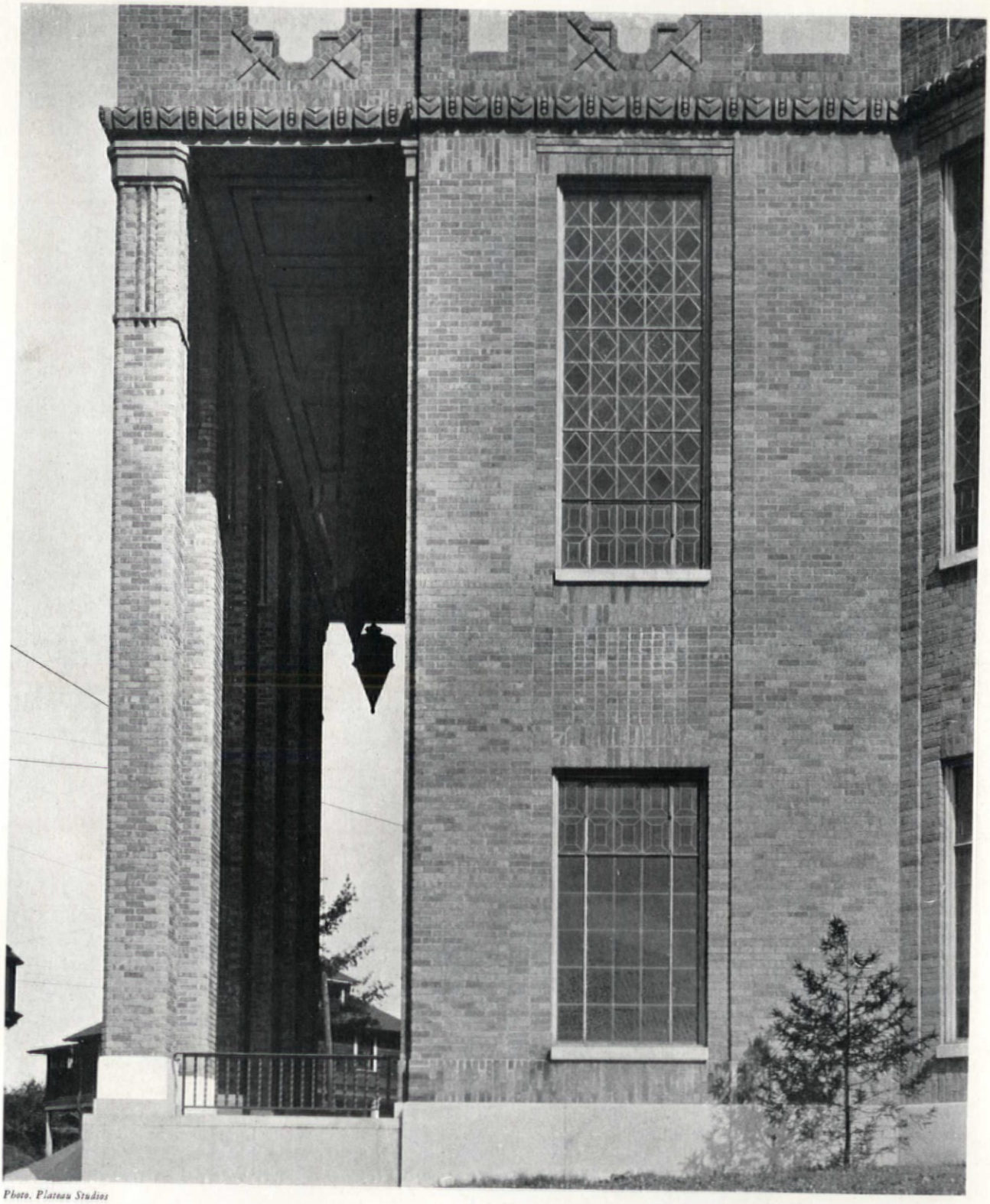


Photo. Plateau Studios

THE FIRST BAPTIST CHURCH OF ASHEVILLE, N. C.
DOUGLAS D. ELLINGTON, ARCHITECT

The building was planned for a congregation of five thousand, which includes, in terms of seating capacity, educational provision for three thousand and church accommodation for two thousand.

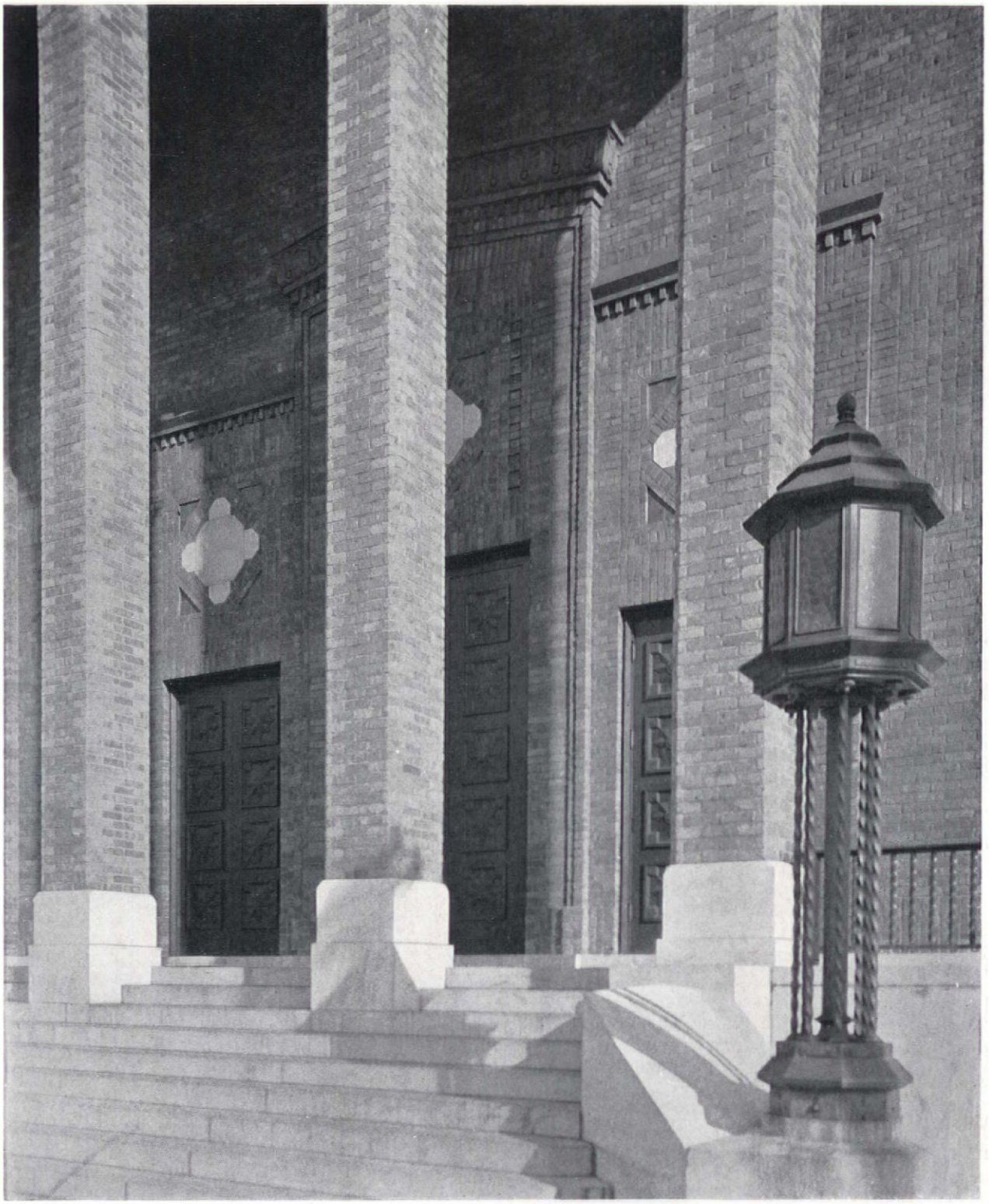


Photo. Plateau Studios

There are more than one hundred rooms. The pastor's residence is the only detached structure.

THE FIRST BAPTIST CHURCH OF ASHEVILLE, N. C.
DOUGLAS D. ELLINGTON, ARCHITECT



Photo. Plateau Studios

THE FIRST BAPTIST CHURCH OF ASHEVILLE, N. C.
DOUGLAS D. ELLINGTON, ARCHITECT

The exterior walls are of Booker brick which resembles the English handmade brick of the early eighteenth century.



Photo. Plateau Studios

The profuse patterns occurring throughout the brickwork are set off at intervals by clearly delineated ornament in pink Georgia marble.

THE FIRST BAPTIST CHURCH OF ASHEVILLE, N. C.
DOUGLAS D. ELLINGTON, ARCHITECT

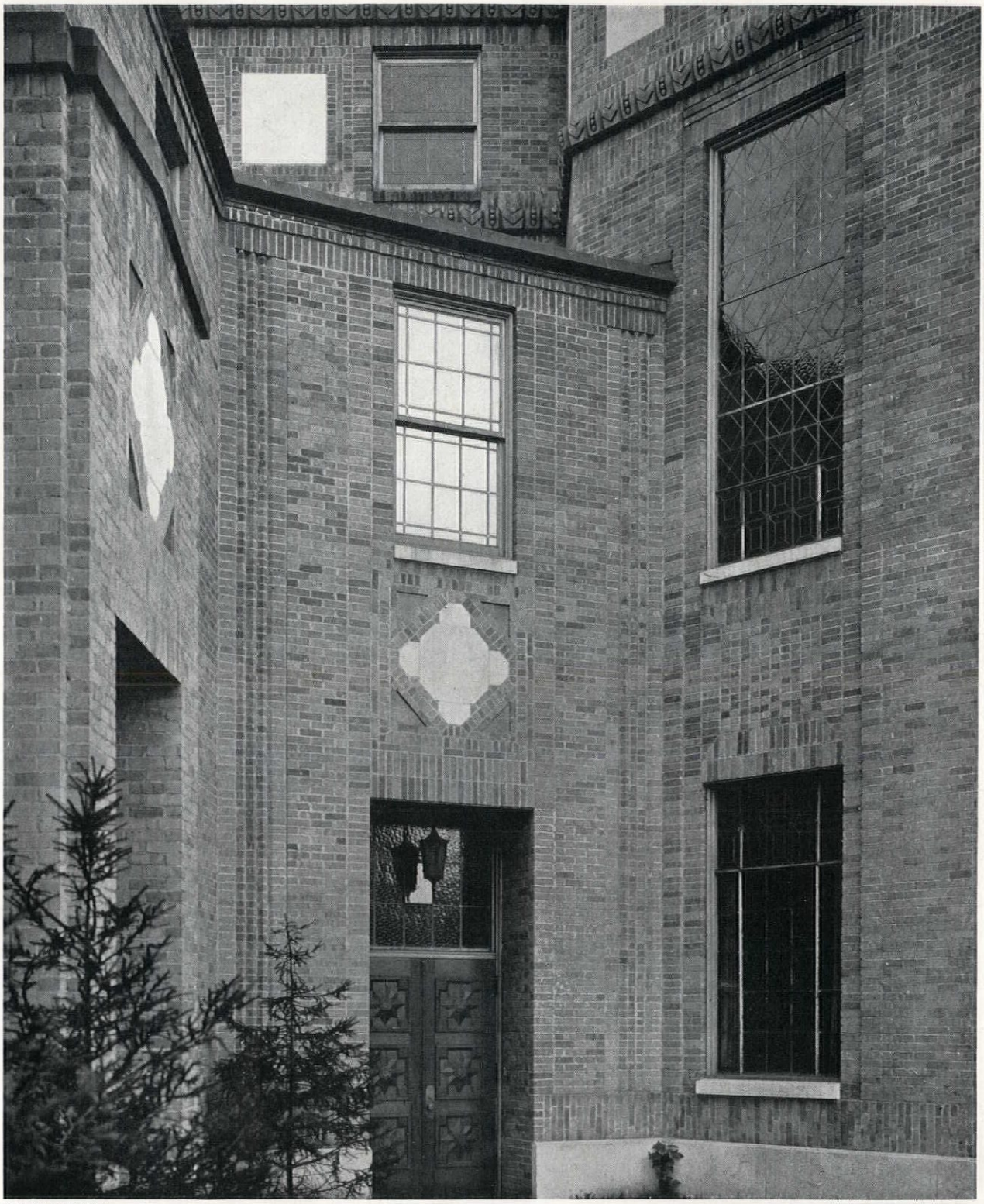
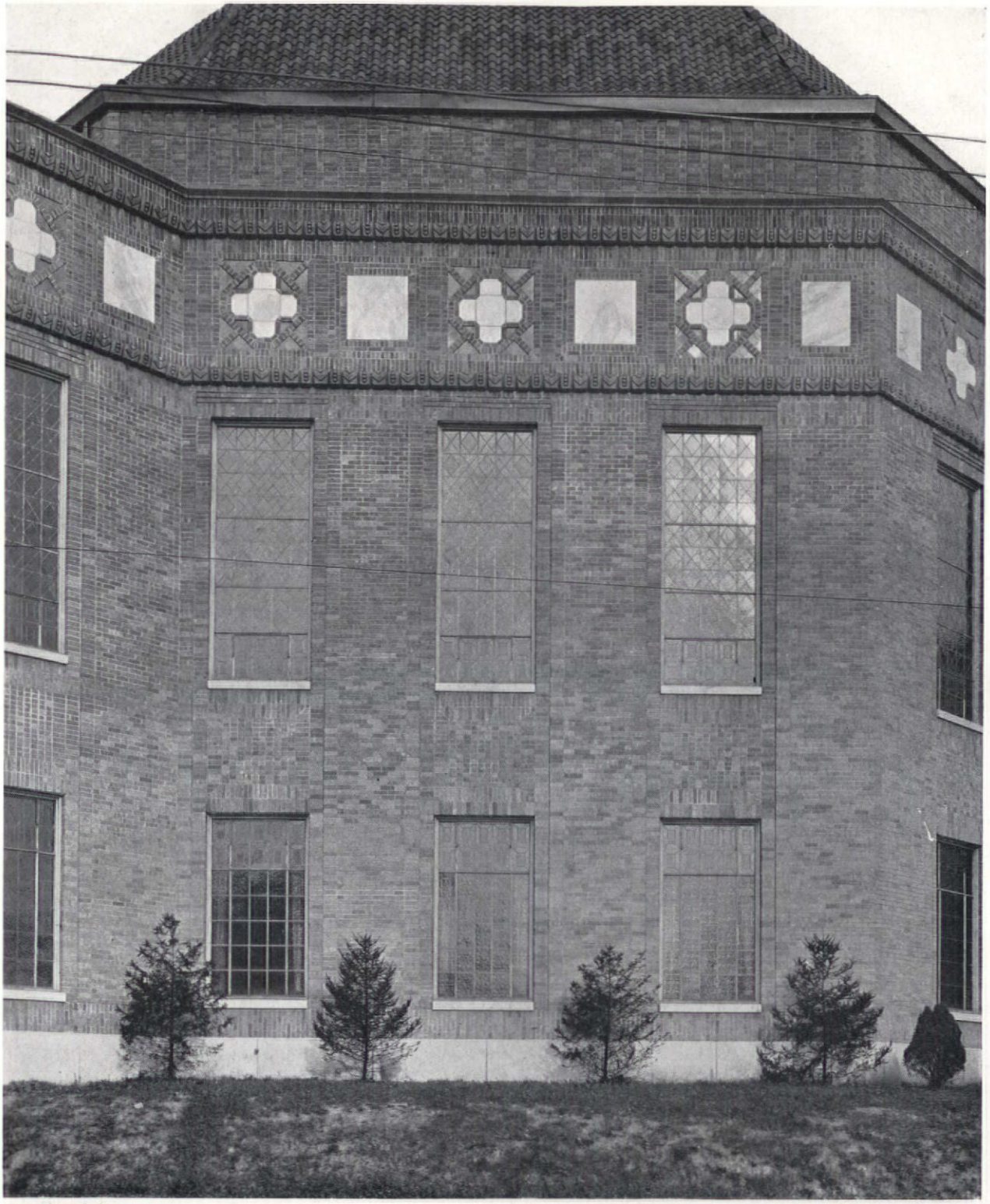


Photo. Plateau Studios

THE FIRST BAPTIST CHURCH OF ASHEVILLE, N. C.
DOUGLAS D. ELLINGTON, ARCHITECT

The brick color is a warm heather purple. The terra cotta bands and copings match the color of the brick. The general structure is of load-bearing brick construction.



Photo, Plateau Studios

The outer units of the educational areas are two stories in height, the inner units three stories in height, the main auditorium a height equal to five stories including the dome with which it is capped.

THE FIRST BAPTIST CHURCH OF ASHEVILLE, N. C.
DOUGLAS D. ELLINGTON, ARCHITECT



Photo Plateau Studios

THE FIRST BAPTIST CHURCH OF ASHEVILLE, N. C.
DOUGLAS D. ELLINGTON, ARCHITECT

The tile roof, from eaves to apex, graduates in tone from a fire-flash purple through brown and red and ochre to green, finally blending into the rusty green of the copper cupola.

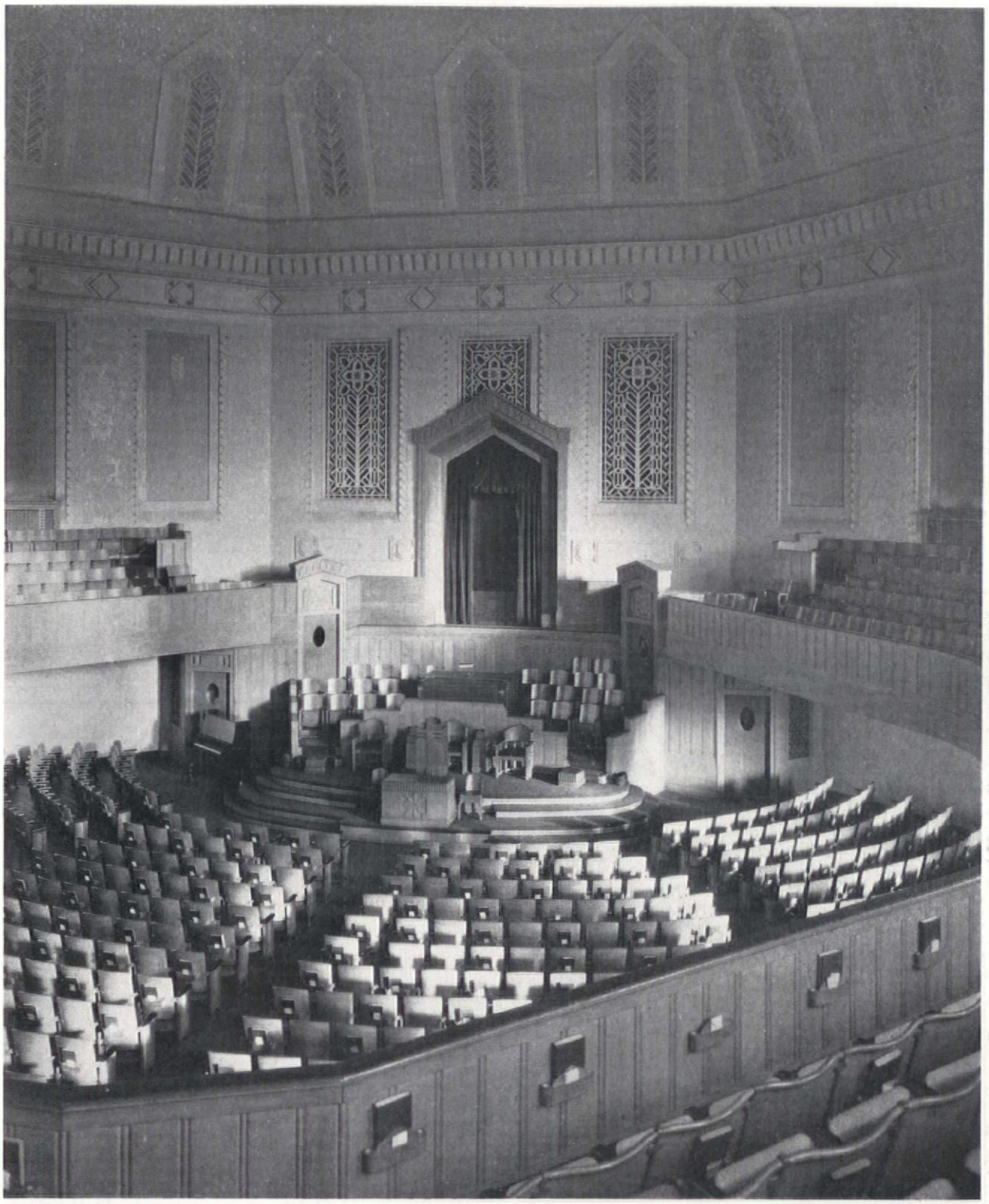


Photo. Plateau Studios

The dome, self-contained within a steel frame, rests like an inverted bowl upon the octagonal walls of the auditorium. The balcony is of cantilevered steel construction.

THE FIRST BAPTIST CHURCH OF ASHEVILLE, N. C.
DOUGLAS D. ELLINGTON, ARCHITECT



Photo. Plateau Studios

THE FIRST BAPTIST CHURCH OF ASHEVILLE, N. C.
DOUGLAS D. ELLINGTON, ARCHITECT

The general color employed in the interior is a warm green gray. In the walls, woodwork and furniture the quality of the color is light and in the floors and draperies it is of a deeper and duller hue.



Photo. Plateau Studios

The windows are of green and amber crinkled Flemish glass. The grilles and ornamental plaster are relieved in color with amber, gold and clear green.

THE FIRST BAPTIST CHURCH OF ASHEVILLE, N. C.
DOUGLAS D. ELLINGTON, ARCHITECT

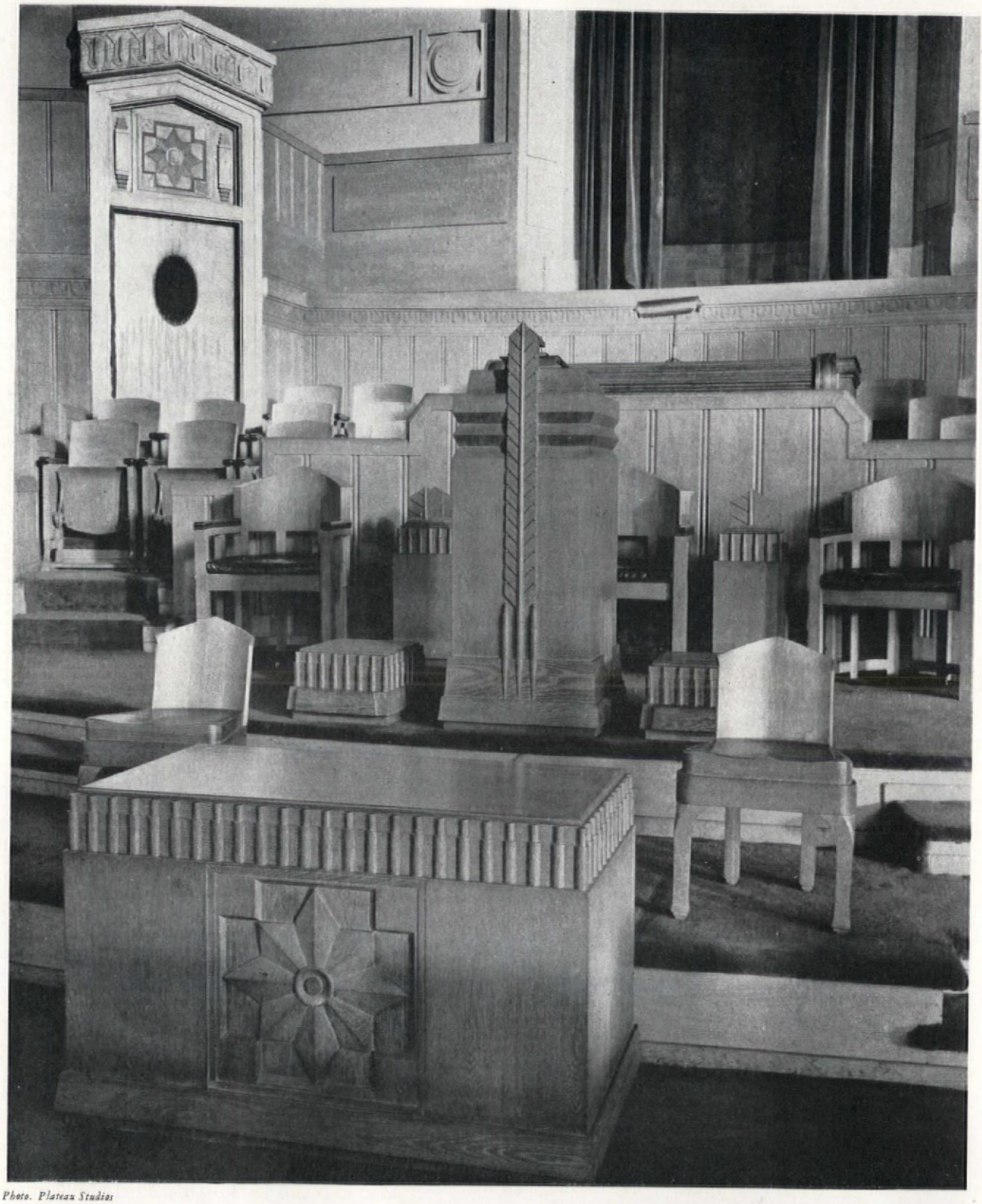


Photo. Plateau Studios

THE FIRST BAPTIST CHURCH OF ASHEVILLE, N. C.
DOUGLAS D. ELLINGTON, ARCHITECT

Cove lighting is used in the auditorium. All furnishings were designed by the architect. The cost of the structure was 35c a cubic foot.



Photo. J. W. Gillies, Inc.

HOUSE FOR J. C. DAVIES AT JOHNSTOWN, PA.

The only difficult problem presented was in laying out a building which would take its place on the top of a hill. The building cost was approximately 75c a cubic foot.

A COUNTRY HOUSE IN PENNSYLVANIA

FRANK J. FORSTER
ARCHITECT

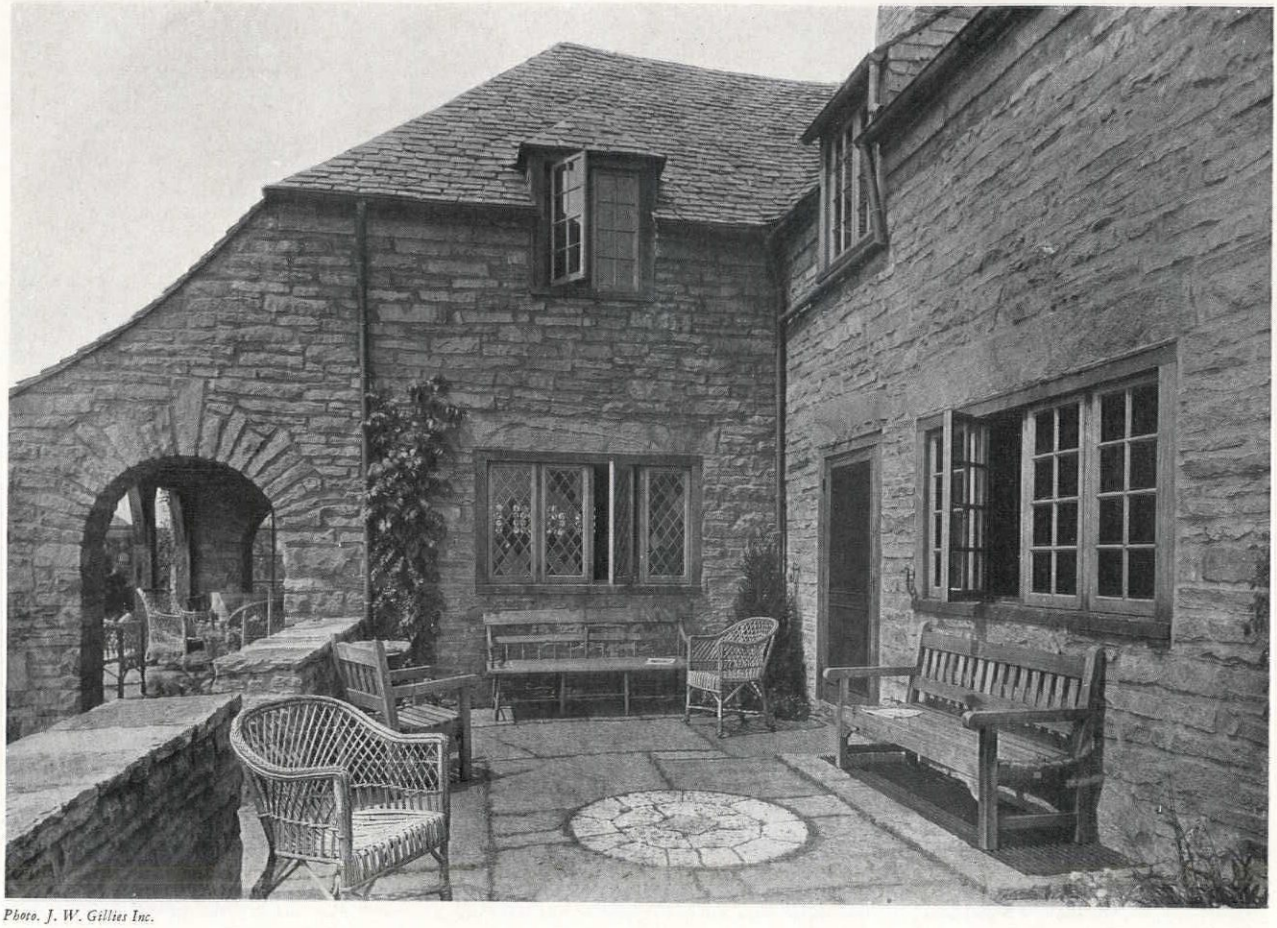
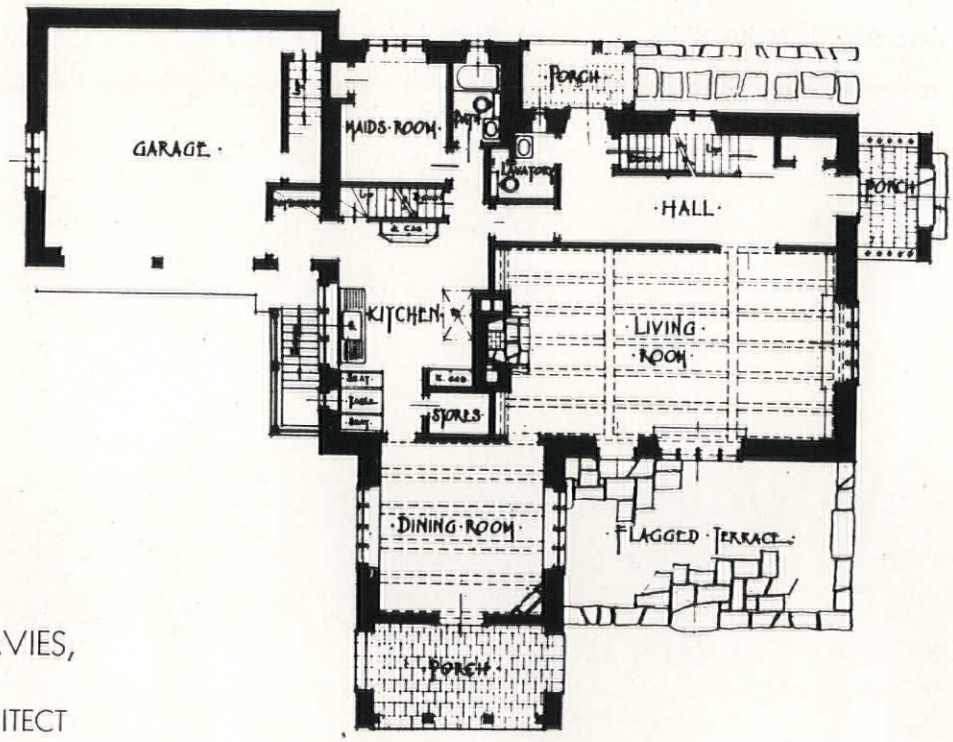


Photo. J. W. Gillies Inc.

GROUND FLOOR PLAN

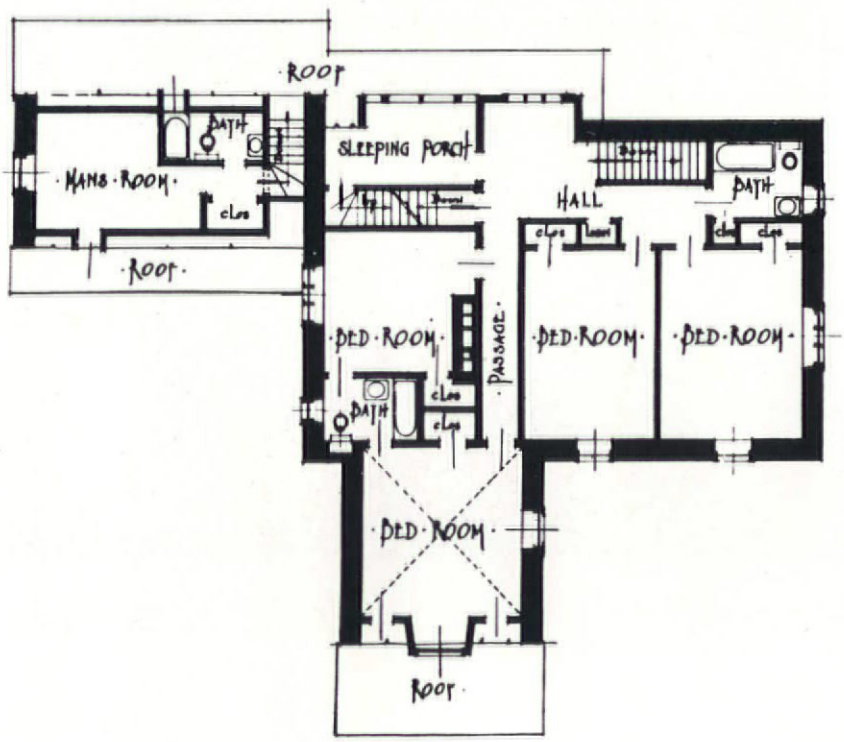


HOUSE FOR J. C. DAVIES, JOHNSTOWN, PA.
FRANK J. FORSTER, ARCHITECT



Photo. J. W. Gillies, Inc.

SECOND FLOOR PLAN



HOUSE FOR J. C. DAVIES,
JOHNSTOWN, PA.
FRANK J. FORSTER, ARCHITECT



Photo. J. W. Gillies, Inc.

HOUSE FOR J. C. DAVIES, JOHNSTOWN, PA.
FRANK J. FORSTER, ARCHITECT

The exterior woodwork has been stained in a soft weathered brown color. All of the timbering, both interior and exterior, was taken from an old barn.

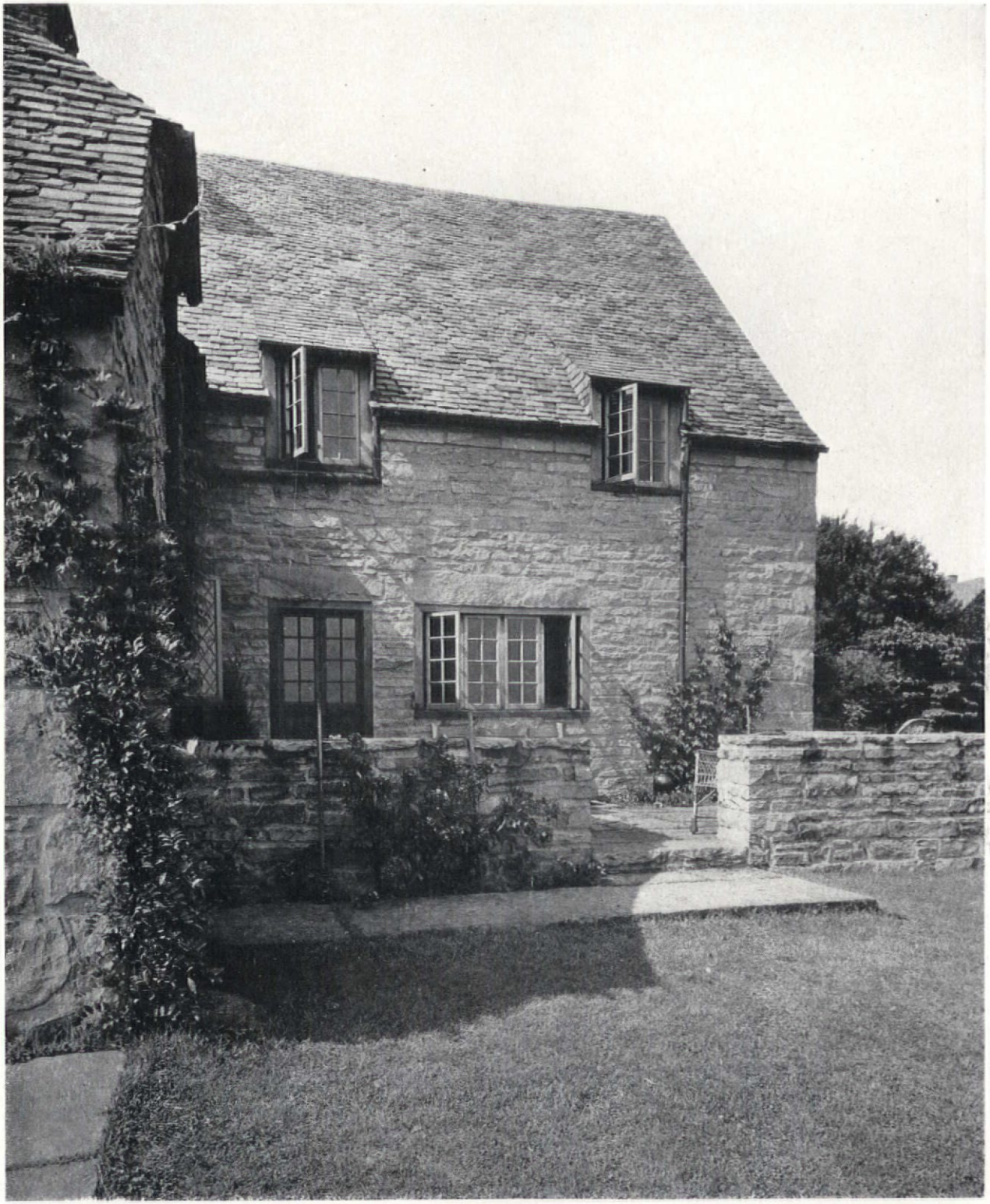


Photo. J. W. Gillies, Inc.

The stone for the exterior walls was taken from an old abandoned iron furnace located near Johnstown. Its color ranges from light buff to a soft plum color. The roof is a heavy slate, graduated in thickness and varying in color.

HOUSE FOR J. C. DAVIES, JOHNSTOWN, PA.
FRANK J. FORSTER, ARCHITECT



Photo. J. W. Gillies, Inc.

HOUSE FOR J. C. DAVIES, JOHNSTOWN, PA.
FRANK J. FORSTER, ARCHITECT

The interior woodwork of the first floor main rooms and second story hall is stained. The plaster is rough and slightly tinted. In the main bedrooms the plaster is also rough, but the woodwork is painted.

A COUNTRY HOUSE IN CALIFORNIA

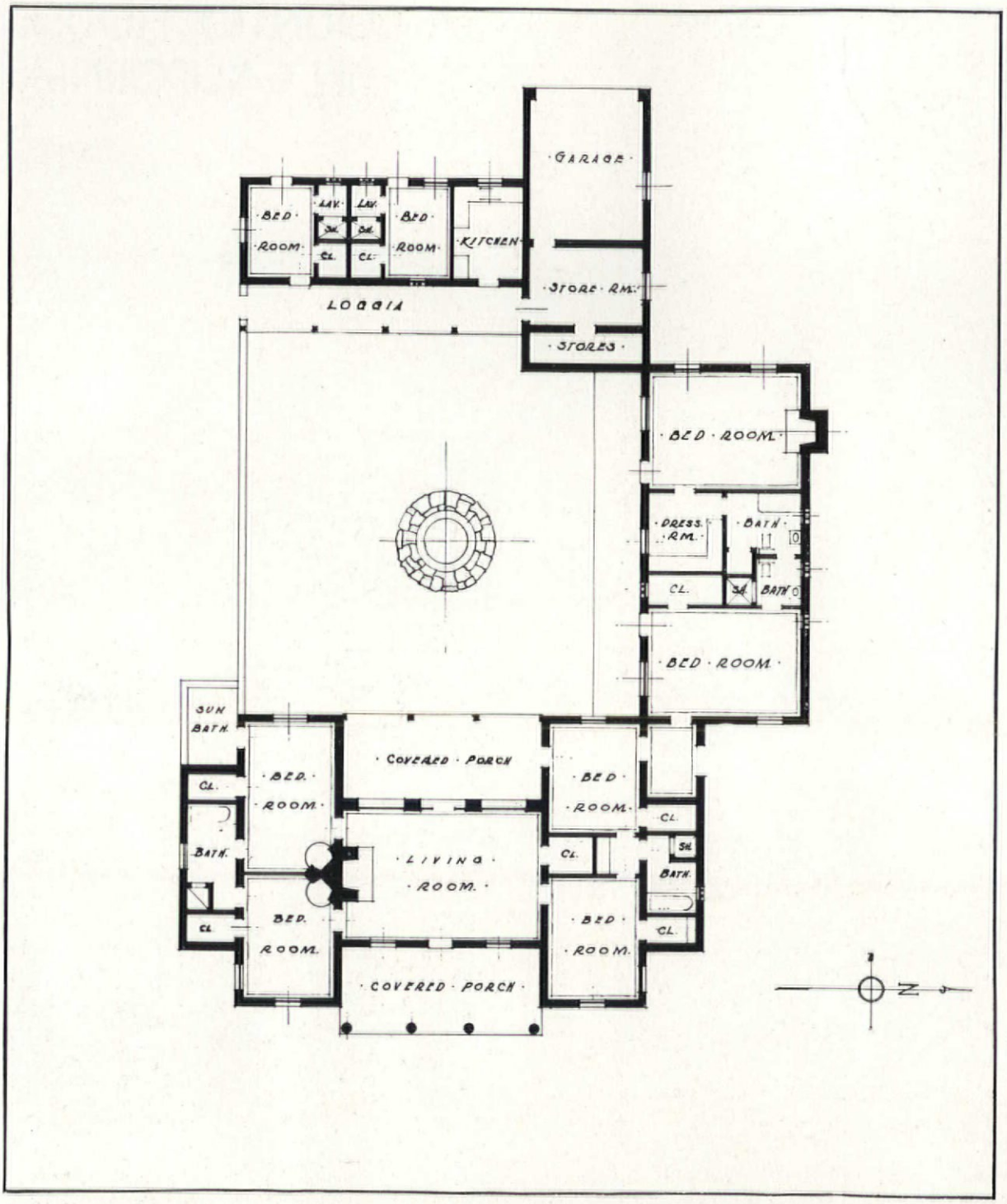




Photo. W. M. Clarke

HOUSE FOR CYRUS PIERCE,
LA QUINTA, CALIFORNIA

GORDON B. KAUFMANN
ARCHITECT



GROUND PLAN

HOUSE FOR CYRUS PIERCE, LA QUINTA, CALIFORNIA
GORDON B. KAUFMANN, ARCHITECT



Photo. W. M. Clarke

HOUSE FOR CYRUS PIERCE, LA QUINTA, CALIFORNIA
GORDON B. KAUFMANN, ARCHITECT



Photo. W. M. Clarke

HOUSE FOR CYRUS PIERCE, LA QUINTA, CALIFORNIA
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Photo. W. M. Clarke

HOUSE FOR CYRUS PIERCE, LA QUINTA, CALIFORNIA
GORDON B. KAUFMANN, ARCHITECT



Photo. W. M. Clarke

HOUSE FOR CYRUS PIERCE, LA QUINTA, CALIFORNIA
GORDON B. KAUFMANN, ARCHITECT

HOW SMALL A HOUSE?

THE problem of providing lodgings for the small wage earners has attracted little study from architects. The task has been relegated to the ambitious but unskilled jerry-builder who has given us as his solution the haphazard ugliness of Shacktown and the Slum.

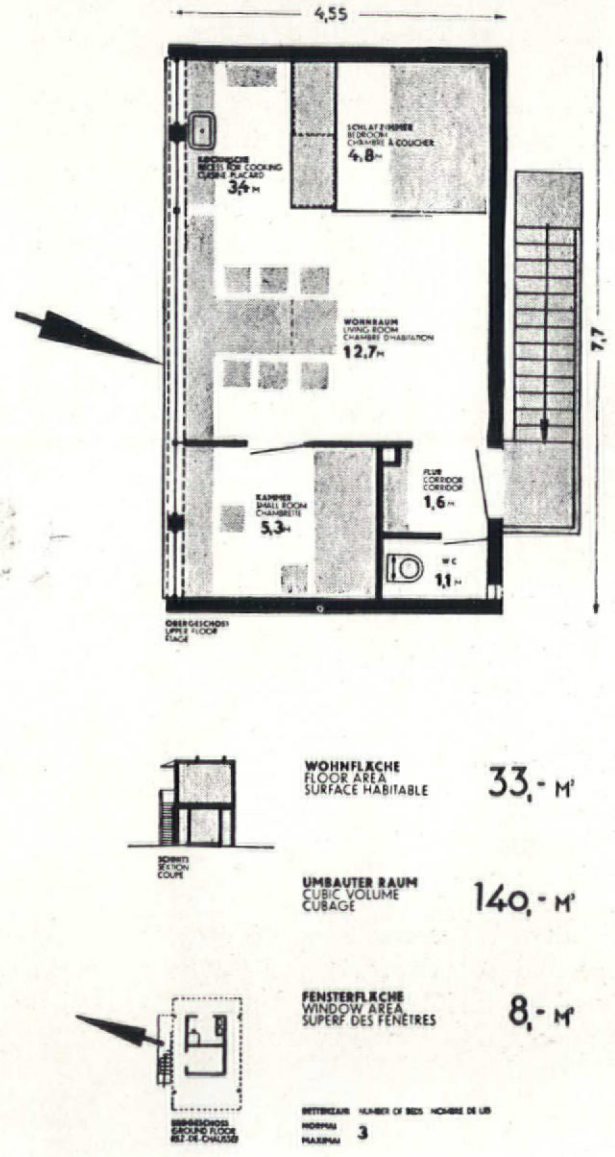
Obviously a change is necessary for the promotion of a healthy society and this change must evolve not through the hit and miss methods of speculative builders, but through the scientific study of the small habitation unit and the needs of the inhabitants. Something more than a mere contraction of rooms to their smallest livable dimensions is required. There should be included a maximum of the most up-to-date household conveniences, and new materials affording an economy of construction should be considered. Such a change from existing conditions presupposes a study not only of the demands of hygiene, but even of the structure and function of the family itself.

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The minimal habitation has already received attention in Europe where the problem of housing the masses efficiently and economically is pressing enough to be a political issue. At the second International Congress on Modern Architecture, held last year at Frankfurt-am-Main under the auspices of the *Stadtbauamt*, the minimal house was the sole subject of debate among the 150 delegates assembled from America and the various countries of Europe.

In conjunction with the Congress there was an exhibition of some hundred plans submitted by these architects as tentative solutions of the minimal house. These plans, drawn to a standardized scale, have since been collected and now appear in book form under the title, *Die Wohnung für das Existenzminimum*, published by Englert and Schlossen of Frankfurt. All descriptive captions are printed concurrently in German, English and French, and there is some text matter written by *Stadtbaurat* Ernst May of Frankfurt and by Dr. Siegfried Giedion of Zürich, secretary of the Congress and author of several books on modern architecture.

Some of the plans are quite interesting, offering a pertinent application to the plan-



A SPECIMEN ONE-FAMILY HOUSE FROM "DIE WOHNUNG FÜR DAS EXISTENZMINIMUM"

ning of apartment houses where space is at a premium. Others are quite mediocre, revealing no great planning craft other than that of reducing the essential rooms to their smallest allowable dimensions. The various tricks and *tours de force* are ingenious but unsatisfactory. The better plans are those inspired largely by the typical American "efficiency" apartment layouts where the same room serves a two-fold purpose, one by day and another by night. By far the most highly organized plan submitted is the one by Le Corbusier and P. Jeanneret, a scheme which is described in full detail in this issue of THE RECORD, pages 131–135.

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Realizing that it would not be possible to arrive at any definite conclusions within a few days on such a difficult problem as the minimal house, the Congress has sought instead to set up an international tribunal which will gather together material and data, recognize the sources of error and, above all, conduct investigations among business and professional men with the aim of substituting a scientific precision for vague subjective gropings in building construction. A collaboration between the professions on an international scale will be attempted to determine *scientifically* the program of the minimal habitation.

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Sociological requirements determine largely the minimal house, according to Prof. Walter Gropius of Berlin, who addressed the assembly. The economic life of the community has changed greatly: the cooperative division of labor has made the family lose its importance as an economic unit of production and consumption. The children become self-supporting at an early age and consequently the family tends to break up into separate entities always more reduced in size and more numerous. This phenomenon is not an evidence of decadence; rather it is an intermediate stage towards a more differentiated society.

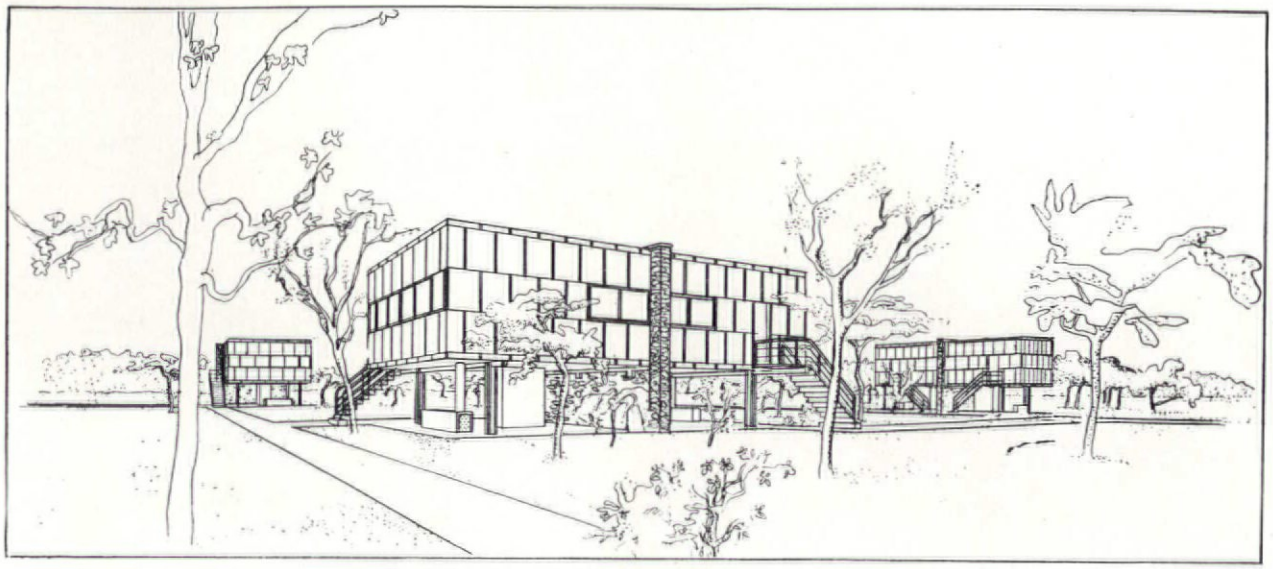
For the habitation all this means a steadily increasing number of separate, distinct lodgings, and at the same time a reduction in their dimensions. These minimized dimensions which are brought about by the decentralization of the family should not be considered simply as the result of a transitory economic development—they relate intrinsically to the division of labor, which in turn has been brought about by the development of modern industry.

The change in social conditions requires the elaboration of an entirely new program for the minimal habitation. It is not by merely reducing the dimensions of houses already evolved that one can find the solution. First it is necessary to determine the minimum of air, light and space which each person requires. Biologists and hygienists demand a maximum of light and air, but within a space reduced sufficiently to render this maximum possible. Certain rules can then be set forth—to enlarge the windows, to economize the habitable space and to give each adult his own room.

Architects have no interest in going below the minimum requirements of hygiene for reasons of economy. They are able to recognize clearly their responsibilities as professional men in the problems of building. Consequently they should demand a change in the spirit of building codes—rigid laws should be replaced by those more flexible. Bad housing, however, will be eliminated by the initiative of the inhabitant himself (acting through cooperative societies) and by the qualified architect rather than by laws. It is for the producer and the consumer to fix the conditions of the habitation.

Experience shows that in all countries, because of the disproportion between incomes and the costs of construction, there can be no satisfactory way of housing the working classes under present conditions. Building operations stay within the limits of industry and finance, and any initial savings in cost of construction accrue to the benefit of the private capital invested. For this reason the construction of more economical housing should be encouraged by the government.

C. THEODORE LARSON



THE MINIMAL HOUSE: A SOLUTION

By LE CORBUSIER and P. JEANNERET, ARCHITECTS

THE PROBLEM

The design of a dwelling that will be hygienic, weathertight and of sound construction, offering a high standard of living within the workingman's income.

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THE SOLUTION—IN PRINCIPLE

Americans are quite familiar with the one-room "efficiency" apartment, made possible by the invention of the folding bed. Its efficiency lies in the fact that one room is used for two purposes: as a living room by day, as a bedroom by night. During the day a bedroom is used but little, if at all; by night the living room remains empty. The combination of the two functions in the same room is a logical development. This principle is the logic of the minimal house. Instead of attempting to find the absolute minima for a living room, a bedroom and a kitchen, and then combining these into a more or less well-articulated plan, the problem has been approached from the viewpoint that wherever it is rational and logical the same space shall be used to serve more than one function.

The result is a great economy of surface and cubage. The actual area inside the exterior walls is 529 square feet and serves a family of six; the owner pays for 529 square feet of floor area although practically the area is much greater. The house is a true "dwelling machine"—there is no lost space.

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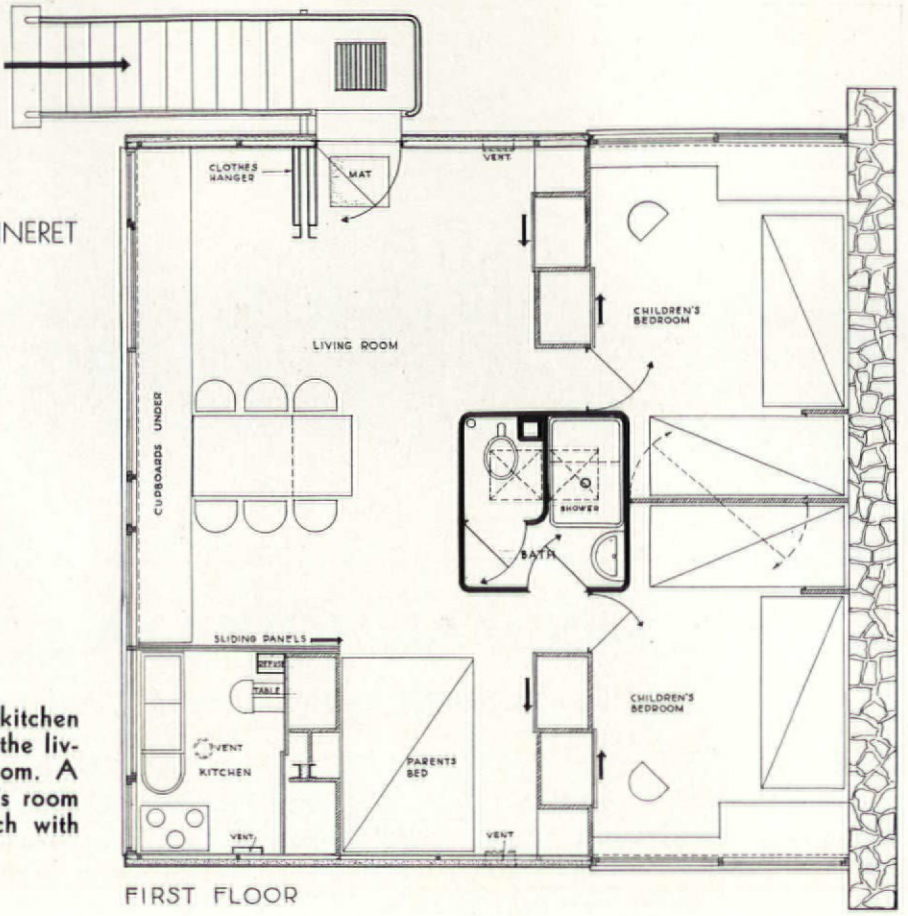
THE SOLUTION—IN DETAIL

The house is the semi-detached type. The actual living quarters are raised one story off the ground and form a unit which is surrounded by the atmosphere on all sides, top and bottom. The house is in the air, with no damp cellar, and with the garden passing underneath. The small portion on the ground level contains only the laundry and heater room, a store room and the refuse box.

In the interior the only fixed partitions are those around the bathroom. The other partitions either are light-weight sliding panels or comprise standard closets and cupboards. These are constructed of sheet metal and have sliding doors. Inside there is shelving for the storing of clothing. The dimensions are standardized but allow many combinations. This idea of built-in furniture is also carried out in the tables at each window of the children's room.

A MINIMAL HOUSE

LE CORBUSIER AND P. JEANNERET
ARCHITECTS



FIRST FLOOR

BY NIGHT

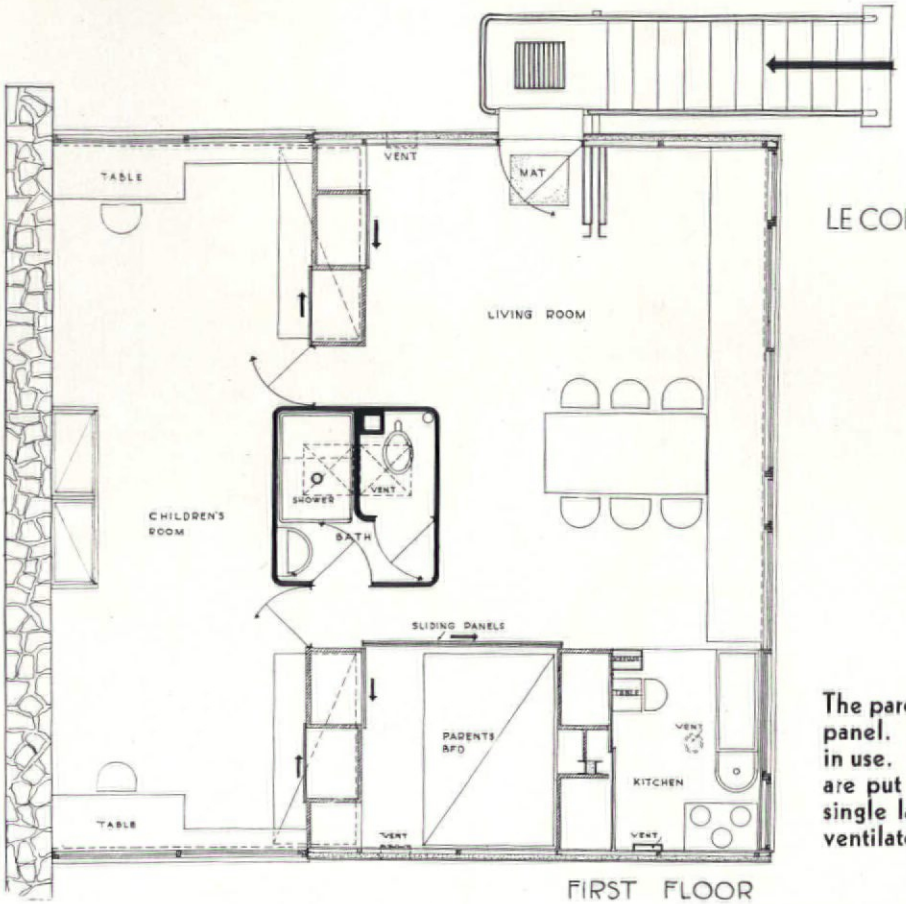
A sliding panel shuts off the kitchen and allows the parents to use the living room as part of the bedroom. A partition divides the children's room into two separate rooms, each with two beds

The plan reproduced shows the house by day and by night. In the daytime, by means of a sliding panel, the parents' bed is closed from the living room, thus shutting off a small space which could not be utilized. The kitchen, when not in use, may also be closed by means of another sliding panel. In the children's room two beds are of the folding type, and during the day they are folded into the closets. The two other beds are pushed halfway under the closet partitions which separate this room from the remainder of the suite. Thus the parents have a quiet living room to themselves where they may be alone, which is a desirable feature. The children have a large playroom and study is well ventilated and lighted.

At night the two panels are pushed over to shut off the kitchen, and the parents have a large and airy bedroom of which the living room is now a part. In the children's room, the wood front wall of the bed closet is pulled forward on a track until it is halfway between the closet and the bathroom wall, then it is turned on a pivot: this forms a partition dividing the room into two smaller rooms. The folding beds are then lowered, and the other two beds pulled out and placed in convenient positions. If there are boys and girls in the family, the two bedrooms are desirable.

The kitchen is simply equipped: a sink, a range, and a workboard that slides out from the built-in cupboard to be used for the preparation of food. In the floor is the lid of the flue leading to the refuse box. The living room is utilized as a dining room.

The bathroom contains a water closet and a lavatory. The bathtub is the type in which one sits rather than lies down; the shower is overhead. A skylight lights this room.



FIRST FLOOR

A MINIMAL HOUSE
LE CORBUSIER AND P. JEANNERET ARCHITECTS

BY DAY

The parents' bed is shut off by a sliding panel. Likewise the kitchen when not in use. In the children's room the beds are put away and the children have a single large playroom and study, well ventilated and lighted

VENTILATION

In addition to the windows there is an auxiliary system of ventilating grilles. In the bathroom, the outside air enters from beneath the house through a grille in the floor and then passes out through grilles at the side of the skylight. In the kitchen there is a wall grille at the floor and an adjustable ventilator in the ceiling. In the living room one wall grille is placed near the parents' bed and another at the corresponding position on the opposite wall. This auxiliary system assures a constant circulation of fresh air.

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WINDOWS

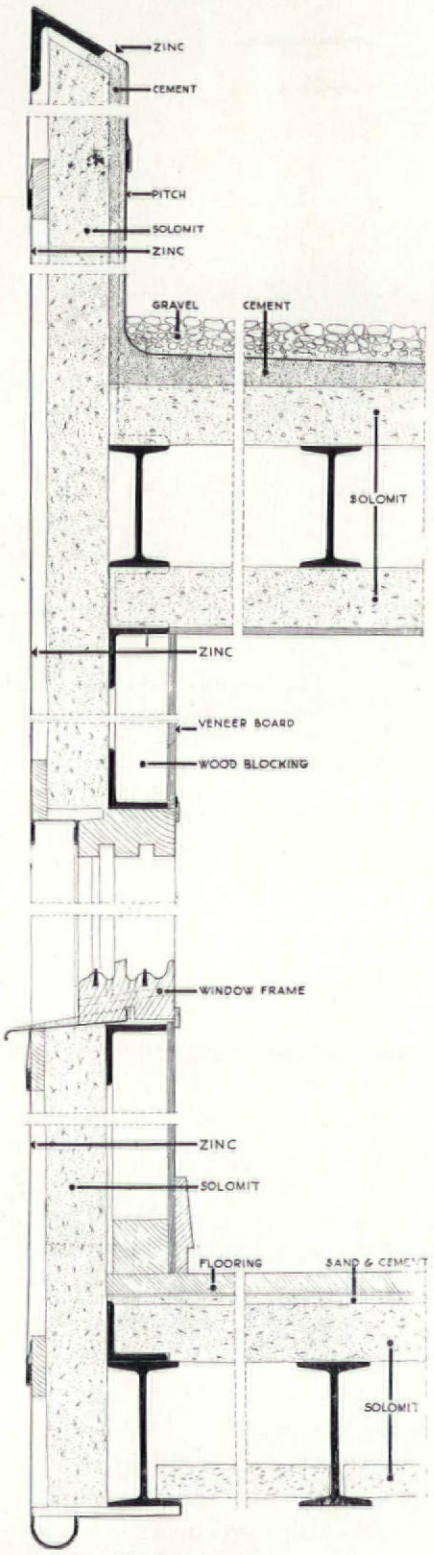
The windows take a form which evolves from the construction. The exterior walls are not supporting and are free of the columns which support the house, giving what is called a "free facade". This fact allows the windows to be a continuous horizontal band of glass stretching from wall to wall or, if necessary, all around the house. In Europe the customary type of window is the casement which, when opened, encumbers more or less the interior. The windows of this house are the sliding type, standard units 8′-3″ in length, each unit containing two sliding sashes.

The window openings are contiguous to the lateral walls so that the walls act as strong reflectors for the light and aid in carrying it farther into the room. Experiments with buildings already constructed have demonstrated that windows contiguous to the walls give a light to the interior of the room that is stronger and more uniform in quality than that given by a number of isolated windows. The larger area of glass also allows more light.

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CONSTRUCTION

In working out the construction the factor of economy was the determinant.



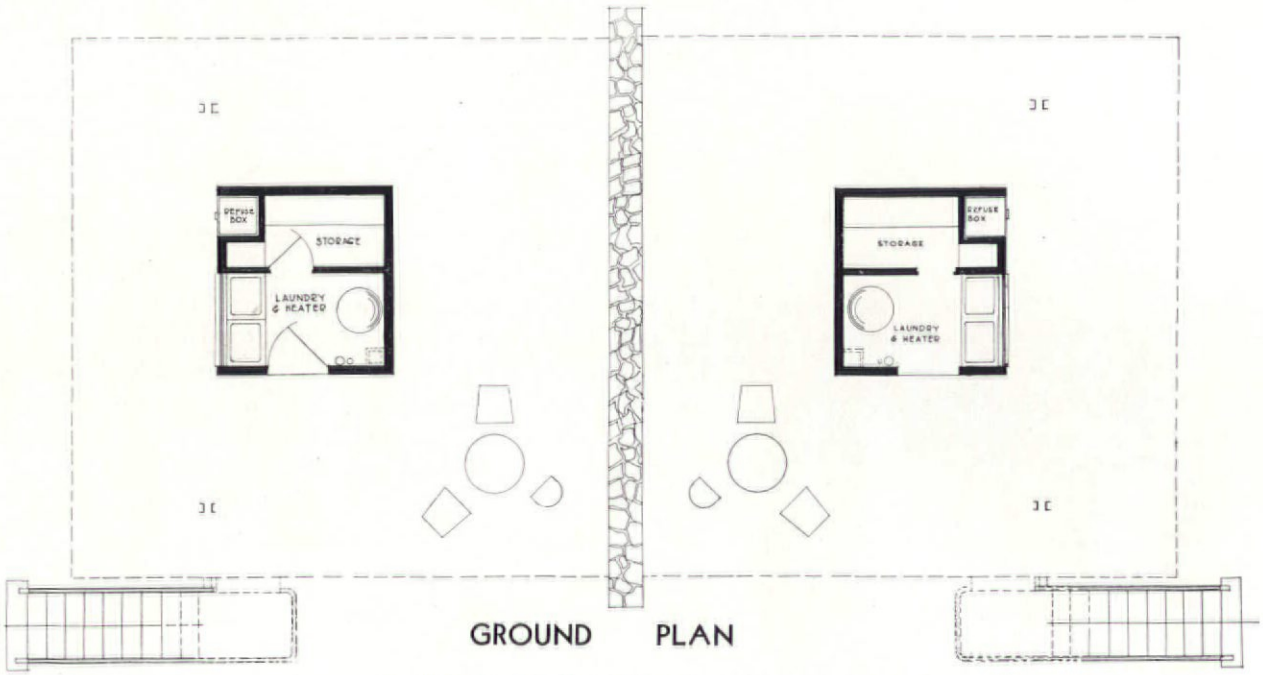
CONSTRUCTION DETAIL
A MINIMAL HOUSE
LE CORBUSIER AND P. JEANNERET
ARCHITECTS

Cheap materials and cheap construction are not rational solutions of the problem. Materials and methods should be the best. The real solution lies in industrializing them, in designing a construction that will allow the greater portion of the work to be accomplished in the factory, thus reducing to a minimum the work done on the site. Steel was selected for the main structural members. For each house there are two columns formed by coupled channels, placed well within the line of the exterior walls. At the same level and against the party walls are channels. The steel floor beams rest on the channel at one end. Between these channels, at floor and roof levels, are I-girder beams, cantilevered out to the exterior walls. At the same levels and against the party walls are channels. The steel floor beams rest on the channel at one end and are cantilevered out beyond the I-girder beam at the other. The structure of the exterior wall is a light cagework of 2″ angles.

Since the walls are no longer supporting, their only function is to be impermeable against the weather and to act as insulation against temperature changes. Other than masonry, which has the defects of excessive weight and great labor cost, there is no single material (as yet developed) which combines adequately the two properties of impermeability and insulation. It was decided therefore to use two materials, each of which would possess one of these qualities. For the insulation, a 2″ thickness of *Solomit* was selected: this is placed on the outer face of the steel angles and fastened to wood blocking. To protect the *Solomit* against fracture and to make an impermeable surface, plates of sheet zinc are laid on the exterior, with wood stripping between the *Solomit* and the zinc.

The interior finish is painted veneer board. The result is a wall that is light in weight, thin in section, and easily constructed, with better insulating and impermeability qualities than masonry.

The floors and roof are similar in construction, except that the roof is finished



GROUND PLAN

A TWO-FAMILY MINIMAL HOUSE
LE CORBUSIER AND P. JEANNERET, ARCHITECTS

with layers of cement and an asphalt compound applied on top of the *Solomit*.

The exterior stair is of light weight steel construction. The horses and railing are steel tubing; the treads and landing, steel plates. The entire stair is assembled at the factory and mounted in place simply by bolting or riveting it to the first step which is of concrete.

The great advantage of this system is the ease of construction. In the first place most of the labor can be performed at the factory. Secondly, the house is not "built": in reality, the different elements are *mounted* into place. The construction proceeds quickly and cleanly for little, if any, water is needed. Dry construction is the most rapid and the most economical. Thirdly, the various elements of the house can be fabricated at the factory and shipped to any part of the country, ready to be assembled.

The only masonry used in the building is the small construction on the ground level and the party wall. The intrusion of this masonry party wall is quite curious, for there is no essential structural reason for its existence. It is merely a necessary and temporary concession to the local stonemasons, giving them some work.

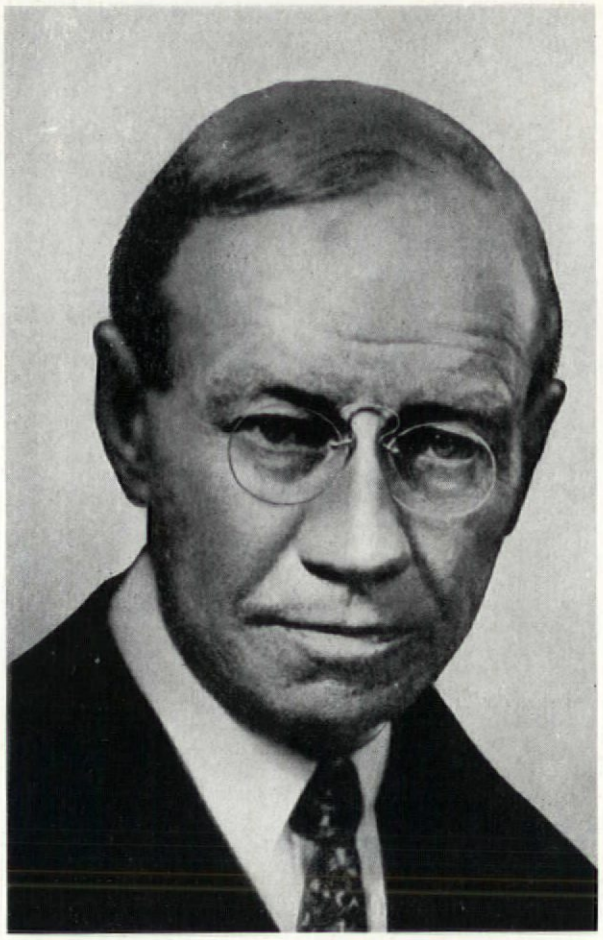
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PURPOSE AND COST

This house was first developed to satisfy the Loucheur Law, under which the French government will offer loans to prospective builders and home owners in addition to the loans the banks will give.

The house was designed for the least expensive class of workmen's dwellings under this law.

The cost, including all equipment, plumbing, heating, folding beds, closets and the like, is estimated at 39,000 francs ($1,560), provided that at least a hundred houses are constructed at one time. If produced in greater quantities, this cost will be even less. NORMAN N. RICE



HERBERT CROLY, 1869-1930
EDITOR OF THE ARCHITECTURAL RECORD, 1900-1906

It is difficult to analyze the traits of a friend, a process that requires a cool detachment. When I think of Herbert Croly, affection fills my thoughts, and to try to recall his architectural interests is to recall, first and last, our frequent conversations in which professional ideas, if I may so describe them, were lost in the extraordinarily wide vision of the man. But from these very conversations and his writings in The Architectural Record twenty-odd years ago, there comes back to me one vivid memory which helps me, as an architect, to pay tribute to his name. It is of his remarkable solidarity with the art we so often discussed, the insight, so unusual in the layman, to look at architecture from the architect's point of view.

An architectural theme was not, for him, merely an episode in the day's work. He cared for the subject, was keen upon its right development in this country and sensitive to all its aspects. He looked deeply into these, too. "It is the idea in a work of art that is striven after," was one of his convictions, and it was this feeling of his for the true, organic meaning of architecture that made him a useful interpreter of it. He had a way of making himself thoroughly familiar with the various categories in this art, and could write with equal effectiveness about city or country houses, clubs and all sorts of public buildings, not excluding theaters. It was of a badly designed theater that I remember his writing. "It belongs to the numerous group of the American architectural hybrid." That remark was characteristic of Herbert Croly in its forthright expression of disapproval. He was often a caustic critic. But I know that what gave him the highest pleasure was writing of good work.

He had ceased to contribute regularly articles on architecture when the skyscraper and the various exigencies of the zoning laws were producing their astonishing effect on the aspect of the modern city. These things I know excited him and he was filled with the hope that some great good to architecture would come of these economic necessities.

My concern at the present time, however, is as to his writings at earlier times. Then he wrote generously, and understandingly and with a clear recognition of historic standards. In the domain of sociology he was a progressive, as we all know. . . . Addressing an audience that embraced the professional and the layman, he appealed to both in favor of good taste. Writing at a period in which American architecture was being transformed he held fast to tried principles and urged discrimination. I come to think of my old friend as having made a most valuable contribution to the highest ideals of architecture.

Charles A. Platt

(Reprinted by courtesy of the *New Republic*, of which Mr. Croly had been editor since its foundation in 1914.)

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ARCHITECTURE

GARNER, THOMAS AND ARTHUR STRATTON

The domestic architecture of England during the Tudor period, illustrated in a series of photographs and measured drawings of country houses and other buildings; with historical and descriptive text. 2nd edition. New York: Charles Scribner's Sons, 1929. 2 vols. Front., illus., plates. f°. $65.00. 724.12.

English edition published by Batsford, in London. First edition, 1910.

This second edition has smaller format, an addition of some twenty houses and a "rearrangement of subjects into groups determined by the dominant material used in their construction." Thoroughly indexed.

HUSSEY, CHRISTOPHER

The old homes of Britain: the southern counties; Kent, Sussex, Hampshire, Surrey and Middlesex. London: Country Life, 1928. 80 p. 80 illus., map. f°. 5s. 728.

Short discussion of the general characteristics of English domestic architecture from the period of the castle to that of Adam. Then follow notes on each house illustrated. The plates are large size and clear.

SMALL, TUNSTALL, & C. WOODBRIDGE

Mouldings of the Wren and Georgian periods; a portfolio of full size sections. London: The Architectural Press, 1928. xv p. 20 plates. f° 8s. 6d. 729.3.

"In compiling this portfolio of full size sections of unenriched Wren and Georgian mouldings, we have made a general selection of authentic contours taken from good domestic work of these periods."—Preface.

Shows panel moulds, handrails, architraves, cornices, with their measurements and source.

SVENSEN, CARL LARS, AND E. G. SHELTON

Architectural drafting. New York: Van Nostrand Co., Inc., 1929. ix, 206. p. Illus., plans. 8°. $2.00. 744.

A text book which deals with architectural details, constructions, plan drawings and the applications of architectural drafting.

TERRASSE, CHARLES

Médersas du Maroc. Paris: Albert Morancé, 1928. 35 p. Illus., 70 plates. 4°. 150 fr. 720.96.

Essay on the architectural features of the Médersa, a Mohammedan college attached to the mosque, where students are lodged. Includes a detailed description of each Médersa. The seventy plates are photographs of exteriors, interiors and details of decoration.

ALLIED ARTS

GEERLINGS, GERALD KENNETH

Metal crafts in architecture, bronze, brass, cast iron, copper, lead, current developments, tin, lighting fixtures, specifications. New York: Charles Scribner's Sons, 1929. vi, 202 p. Front., illus. f°. $7.50. 721.

Bibliography, p. 199.

A discussion of the history, craftsmanship, usage and design of various metals as used in architecture. The plates show both historic and modern examples, and are well-indexed.

SIMONS, WILLIAM L.

Furniture for today, and tomorrow, with details, scale drawings and pen and ink sketches. New York Architectural Book Pub. Co., 1928. 80 plates. $10.00. 729.

A series of eighty measured drawings illustrating furniture and its detail. No text.

SOCIÉTÉ DES ARTISTES DÉCORATEURS, PARIS

Intérieurs au Salon des artistes décorateurs, Paris, 1928, présentés par Réné Prou. Paris: Charles Moreau, 1928. 8 p. 48 plates. f°. 100 fr. 747.

Forty-eight plates, of which six are in color, illustrate contemporary domestic and a few office interiors. These examples suggest a tendency toward an increasing complexity of design.

STUTTMAN, FERDINAND

Deutsche Schmiedeeisenkunst. Band V: Gegenwart. München: Delphin-Verlag, 1928. 20 p. Illus., 56 plates. f°. 45 marks. 721.

Examples of recent German wrought iron, both ecclesiastical and domestic, with illustrations of screens, doors, gates, stair-rails, fireplace accessories and lighting fixtures. Volumes 1 and 2 of this title, published in 1927, show the work of the Middle Ages and of the Renaissance and early Baroque periods.

VERNEUIL, MAURICE PILLARD

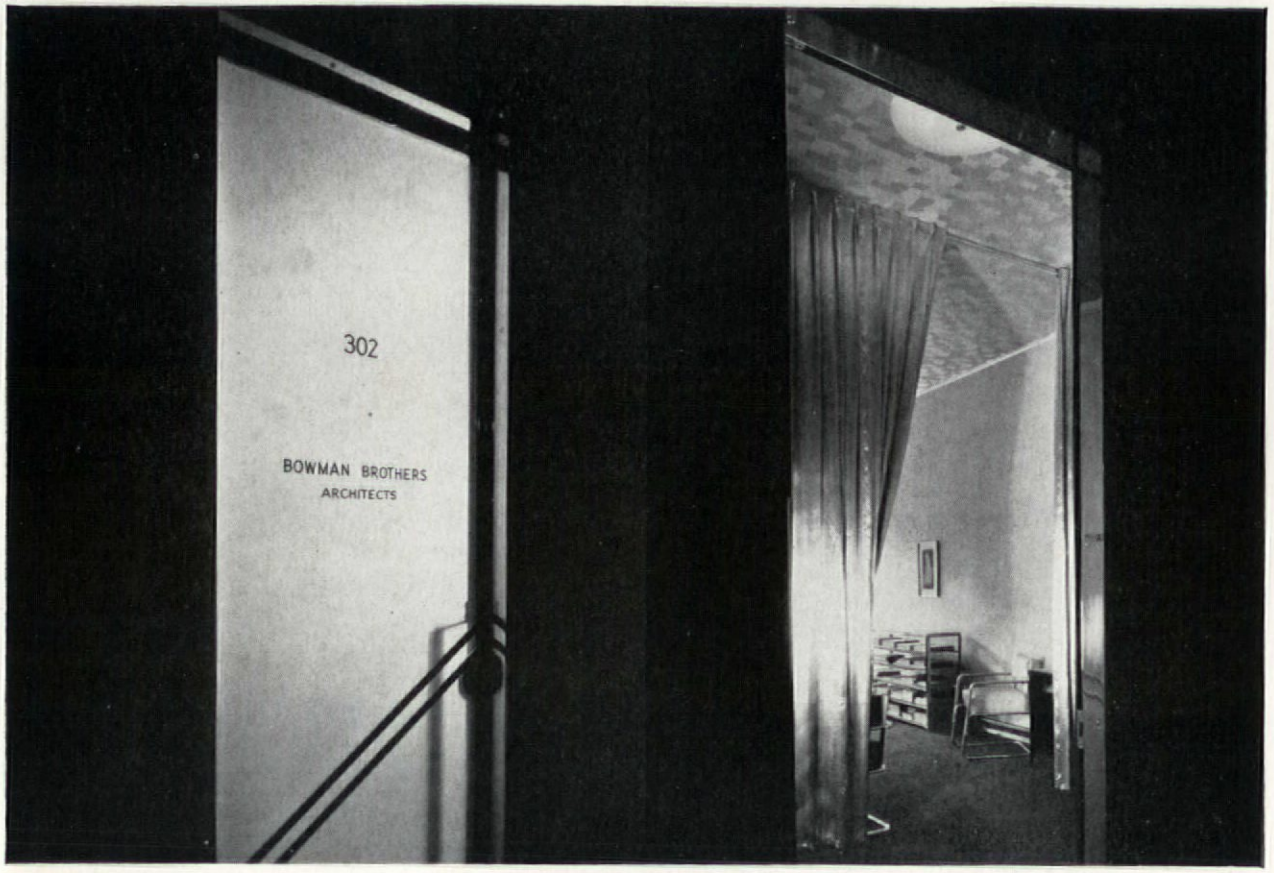
Carl Milles, sculpteur suédois: suivi de deux études: Bildhauer Carl Milles par Walther Unus: the art of Carl Milles par Charles Marriott. Paris: Van Oest, 1929. 2 vols. Illus. 128 plates. 500 fr. 735.

A detailed study and appreciation of the work of this contemporary Swedish sculptor. The second volume is a collection of excellent plates.

VIRETTE, JEAN

Intérieurs modernes et rustiques. Paris: Alexis Sinjon, 1928. 4 p. 56 plates. f°. 120 fr. 747.

Current work of twenty contemporary French architects, illustrating the decoration of ships and the interiors of both town and country homes.

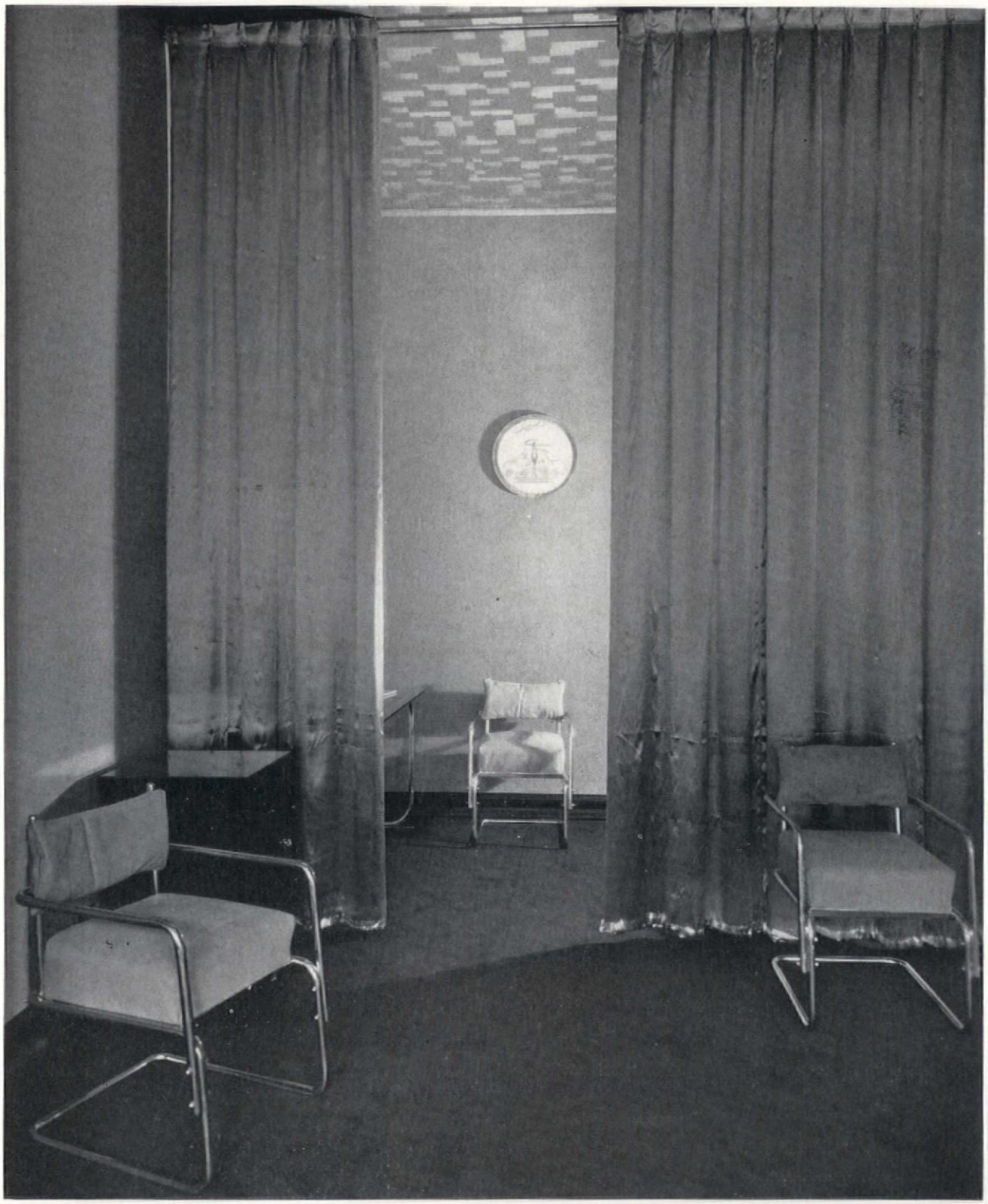


DOOR TO PRIVATE OFFICE

Chromium metal and sand-blasted glass . . . Lighting is obtained by three ceiling fixtures, composed of four tubular lamps each, and three panels of glass of various sizes placed close enough to the ceiling to prevent their being seen from any part of the room . . . The large curtain provides privacy when the door is open as well as absorbing sound vibration.

PORTFOLIO OF CURRENT ARCHITECTURE

FEATURING ARCHITECTS' OFFICES •



VIEW OF ANTE-ROOM

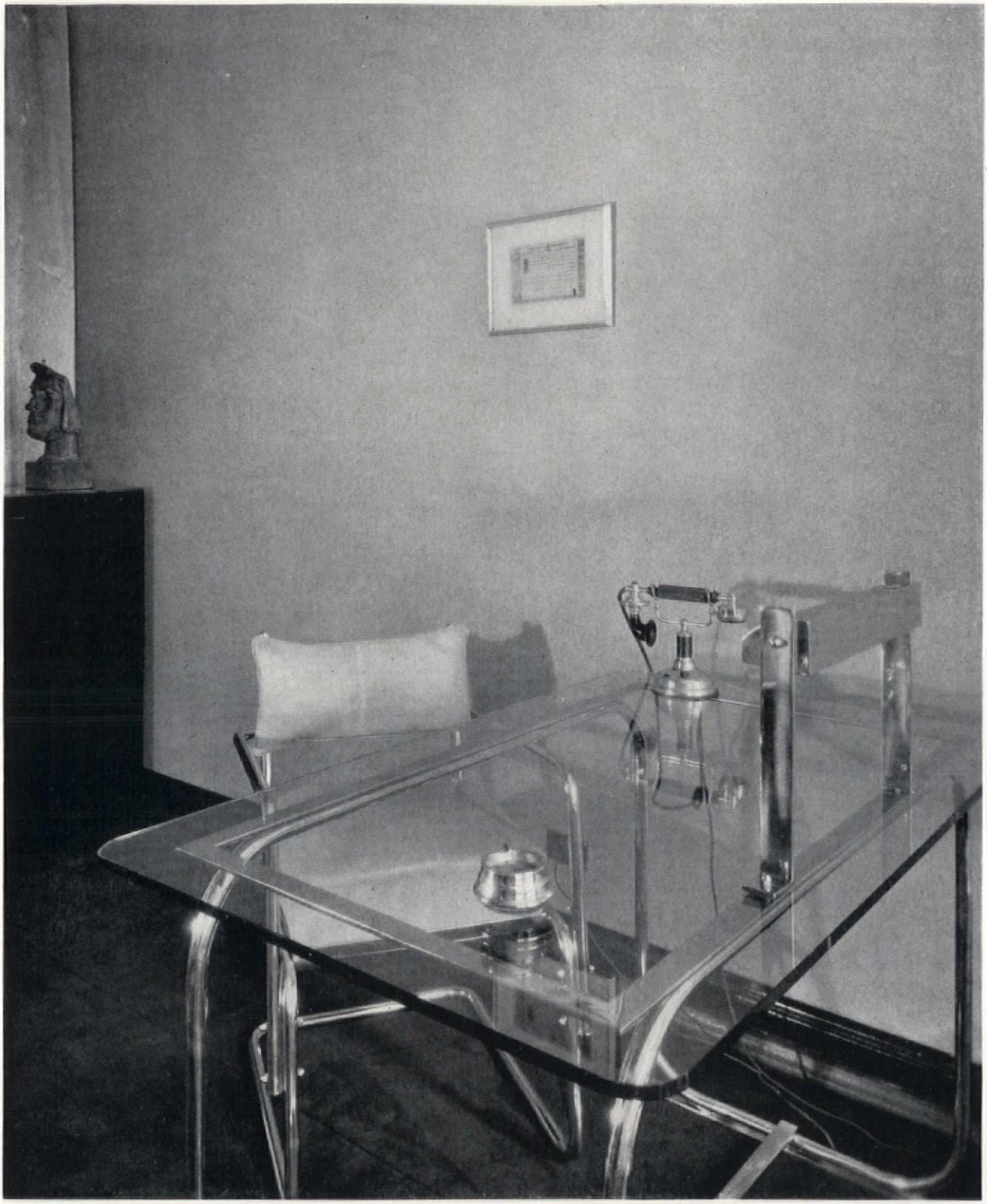
Draperies are silver satin, hung double . . . Walls are azure blue fabricoid . . . Ceiling is a Swiss silver tekko paper . . . On the floor is a black carpet on ½″ lining.

OFFICE OF
BOWMAN BROTHERS, ARCHITECTS
CHICAGO, ILL.



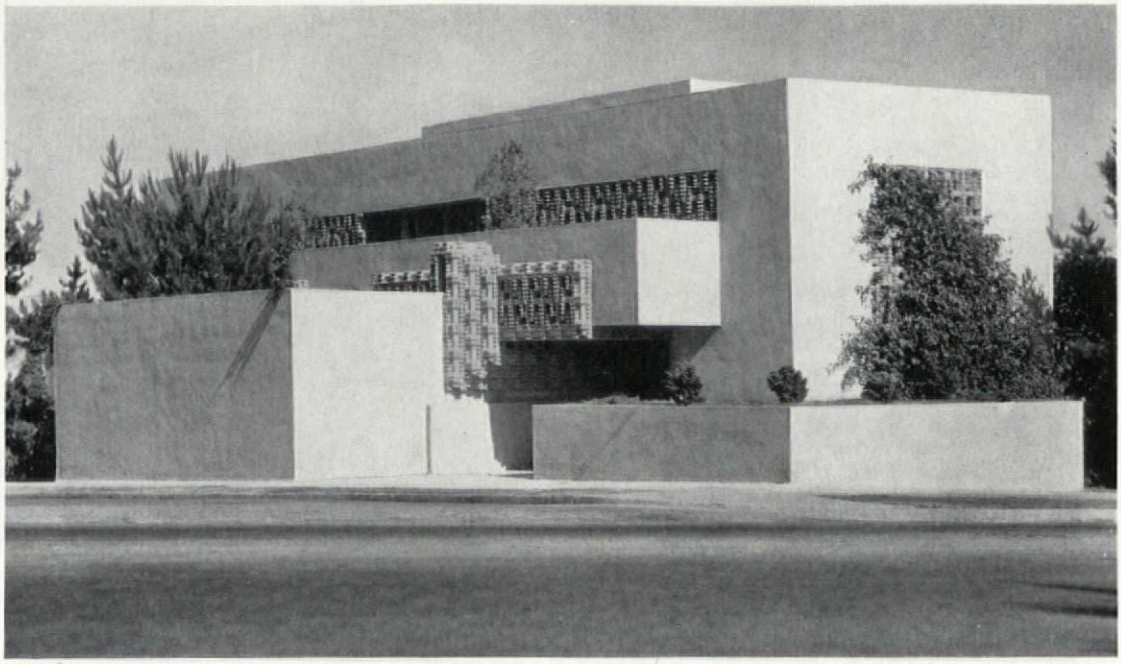
OFFICE OF
BOWMAN BROTHERS, ARCHITECTS
CHICAGO, ILL.

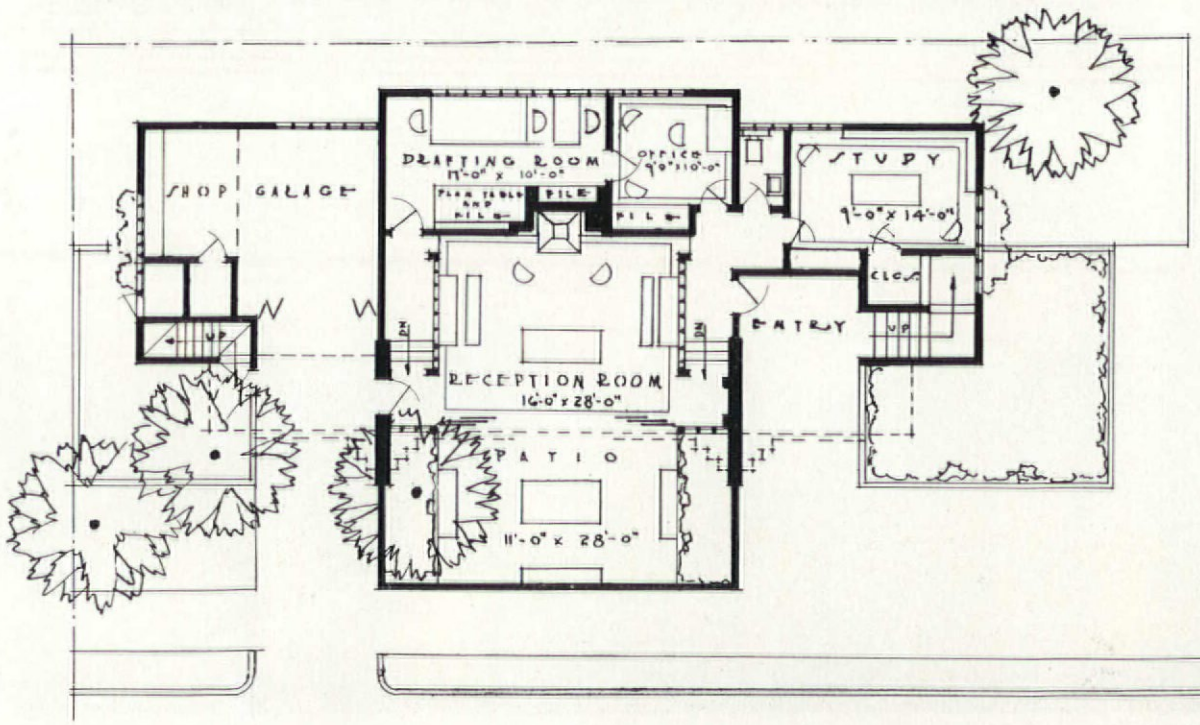
The bookcase is composed of glass shelves supported on lightweight angles, chromium-plated . . . Walls are decorated with few pictures or drawings so as not to be restless in effect . . . The chairs are of steel tubing, chromium-plated with heavy-pigskin seats and backs.



Desk of steel tubing, chromium - plated, with heavy plate glass top. Drawers and cubby-holes are eliminated to prevent accumulation of various items in a disorderly manner during the day. No maintenance other than dusting required . . . Lighting is obtained by a lamp trough reflector fastened to the desk with a swivel joint.

OFFICE OF
BOWMAN BROTHERS, ARCHITECTS
CHICAGO, ILL.



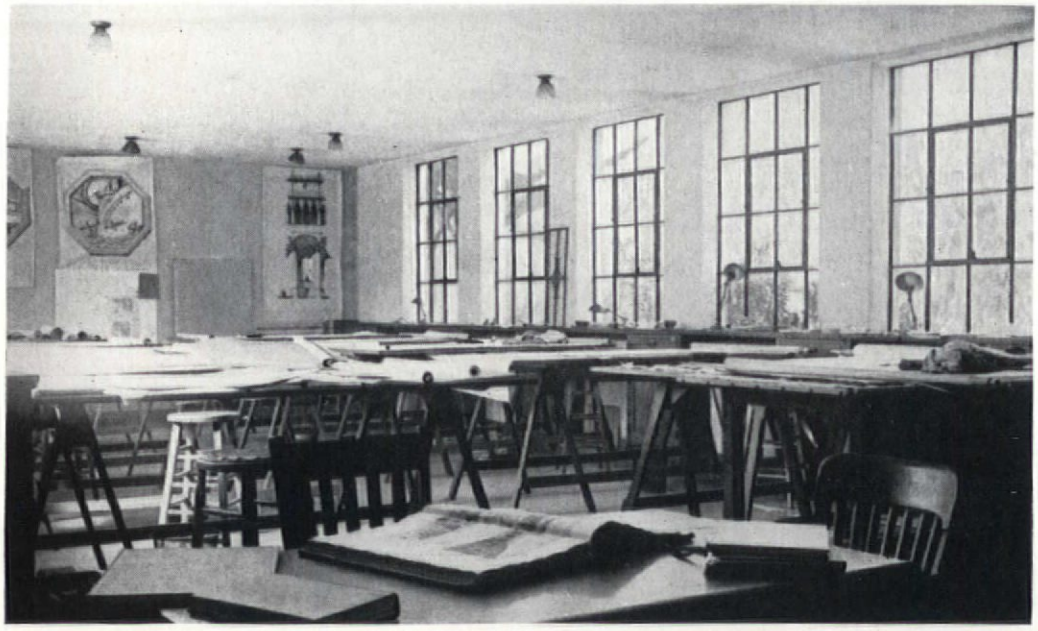


FIRST FLOOR PLAN
SCALE 1/8" = 1'-0"

STUDIO OF LLOYD WRIGHT ARCHITECT LOS ANGELES CALIF.



OFFICE EXTERIOR ↑ . . . . . ↓ DRAFTING ROOM



OFFICE OF
WEBER AND SPAULDING, ARCHITECTS
LOS ANGELES, CALIF.

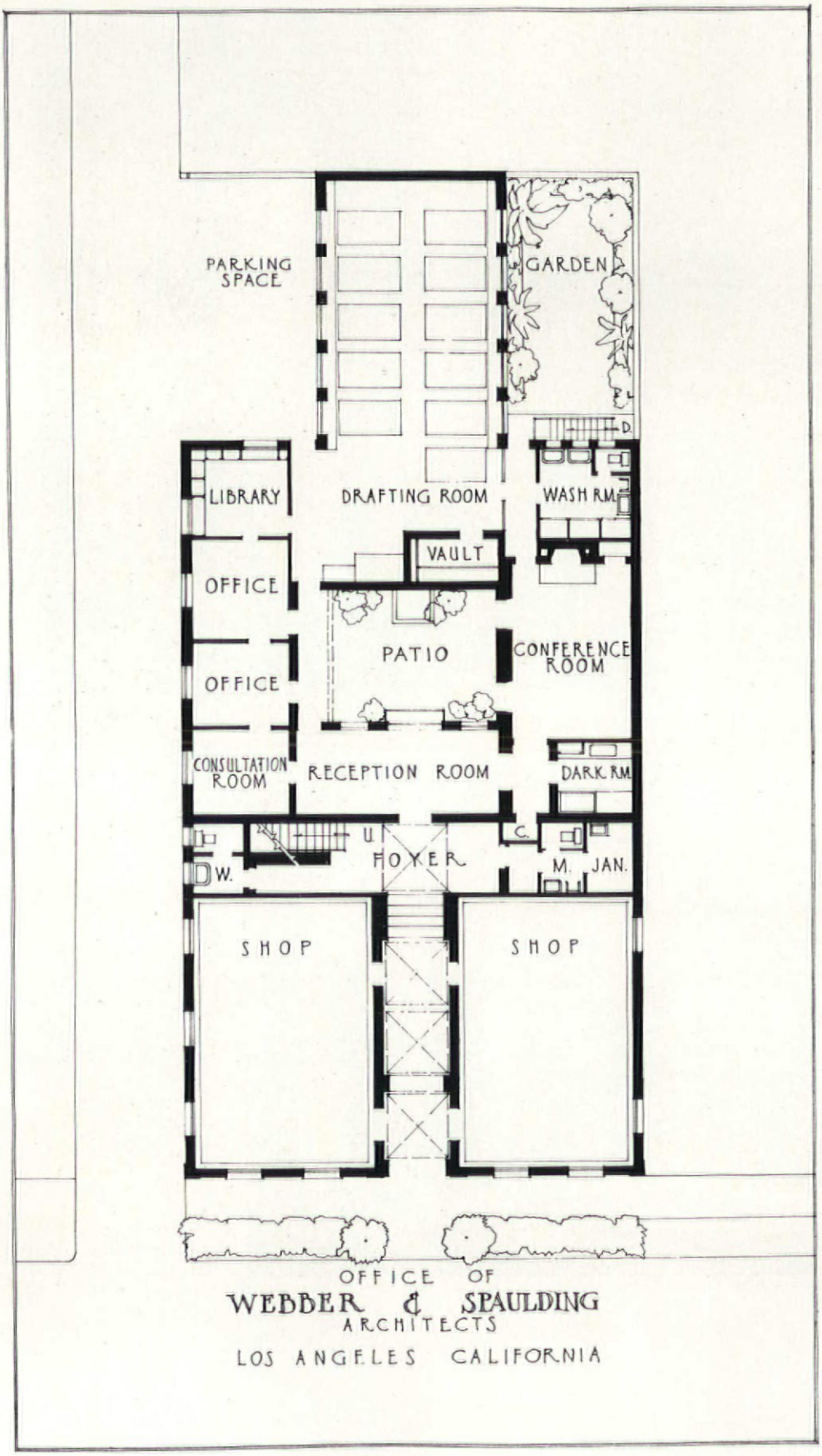

PARKING SPACE
GARDEN
D.
LIBRARY
DRAFTING ROOM
WASH RM.
VAULT
OFFICE
PATIO
CONFERENCE ROOM
OFFICE
CONSULTATION ROOM
RECEPTION ROOM
DARK RM.
C.
U.
HOYER
W.
M.
JAN.
SHOP
SHOP
OFFICE OF
WEBBER & SPAULDING
ARCHITECTS
LOS ANGELES CALIFORNIA



Photo. Clarke

PATIO

OFFICE OF
WEBER AND SPAULDING, ARCHITECTS
LOS ANGELES, CALIF.



Photo. Clarke

CONFERENCE ROOM

OFFICE OF
WEBER AND SPAULDING, ARCHITECTS
LOS ANGELES, CALIF.

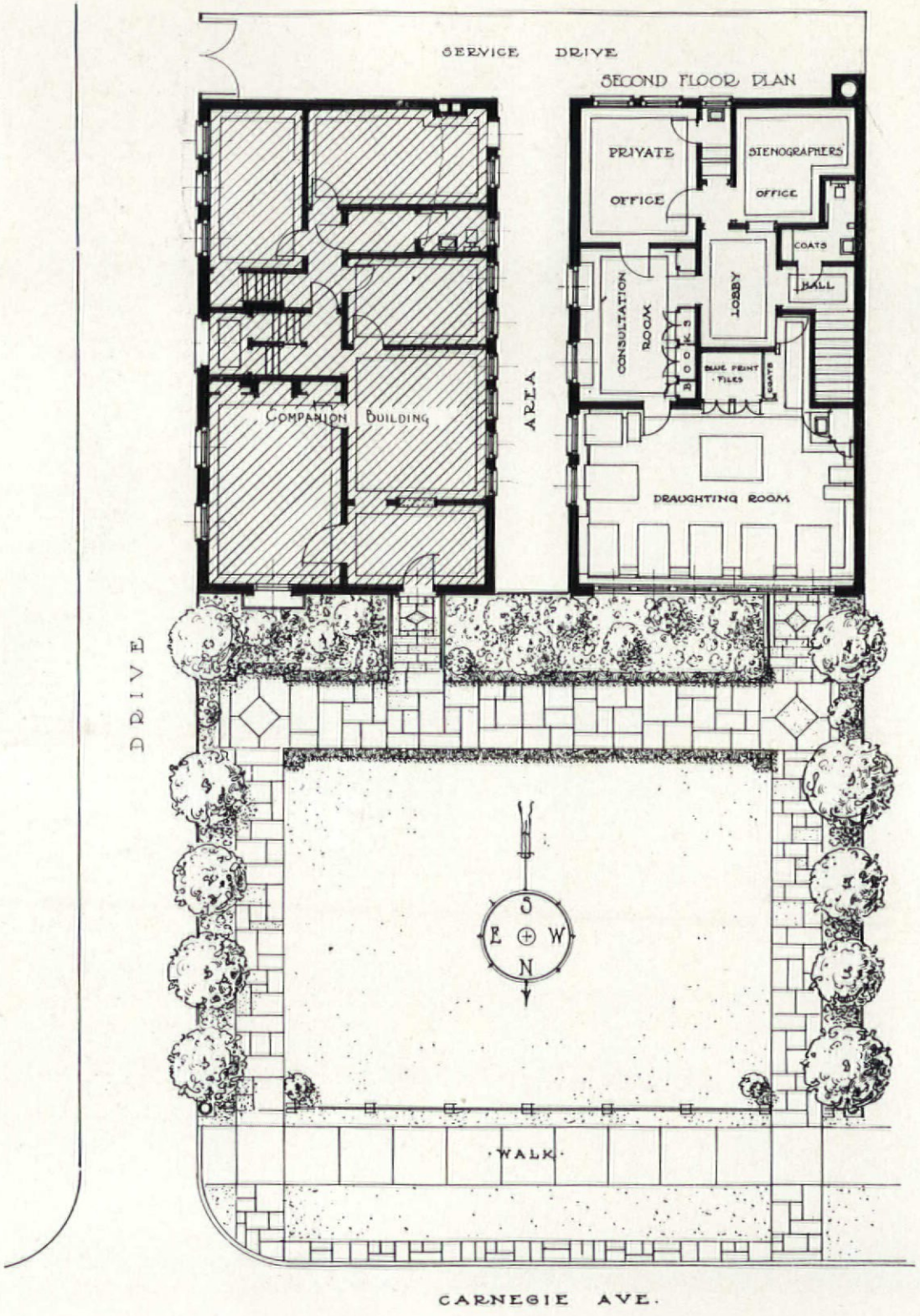


Photo. Hewitt

OFFICE BUILDING

Designed by Howell and Thomas, architects, who occupy the neighboring companion building.

OFFICE OF
PITKIN AND MOTT, LANDSCAPE ARCHITECTS
CLEVELAND, OHIO



OFFICE OF
PITKIN AND MOTT, LANDSCAPE ARCHITECTS
CLEVELAND, OHIO



Photo. Bourke-White

OFFICE OF
PITKIN AND MOTT, LANDSCAPE ARCHITECTS
CLEVELAND, OHIO



Photo. Hewitt

OFFICE OF
PITKIN AND MOTT, LANDSCAPE ARCHITECTS
CLEVELAND, OHIO

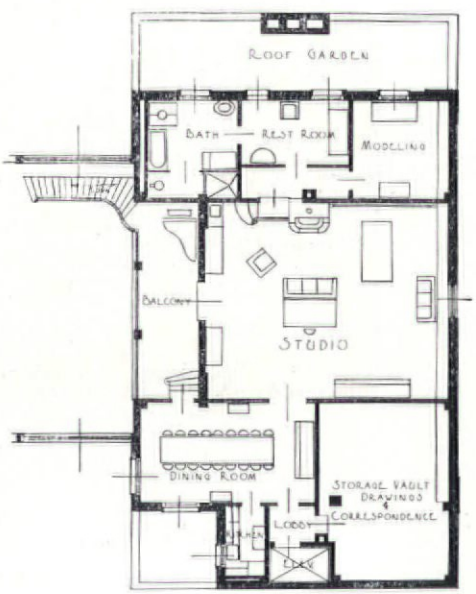


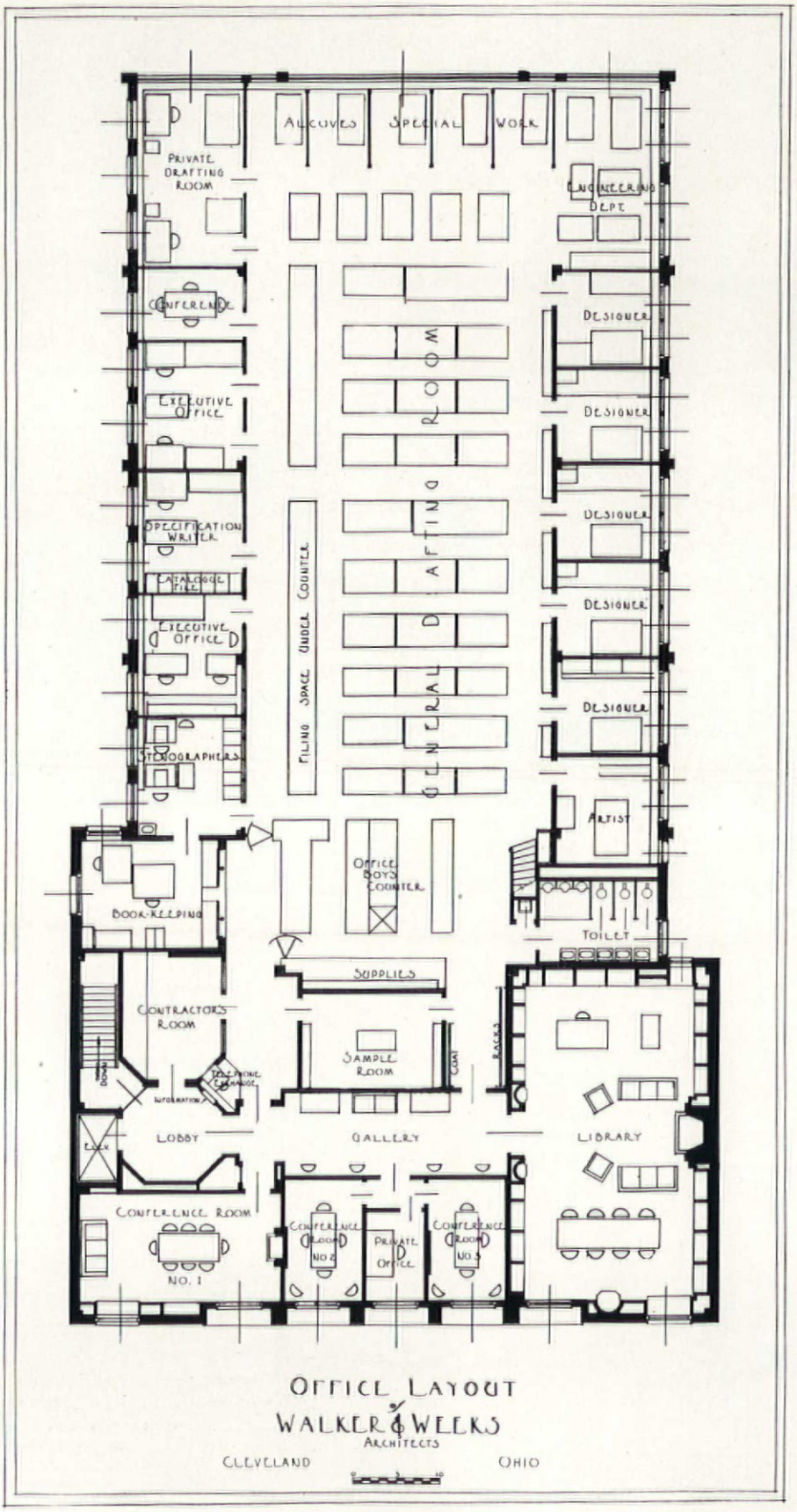
Photo. Lazarnick

DRAFTING ROOM FROM STUDIO BALCONY
OFFICE OF WALKER AND WEEKS, ARCHITECTS .
CARNEGIE BUILDING
CLEVELAND, OHIO



SECTION THRU DRAFTING ROOM

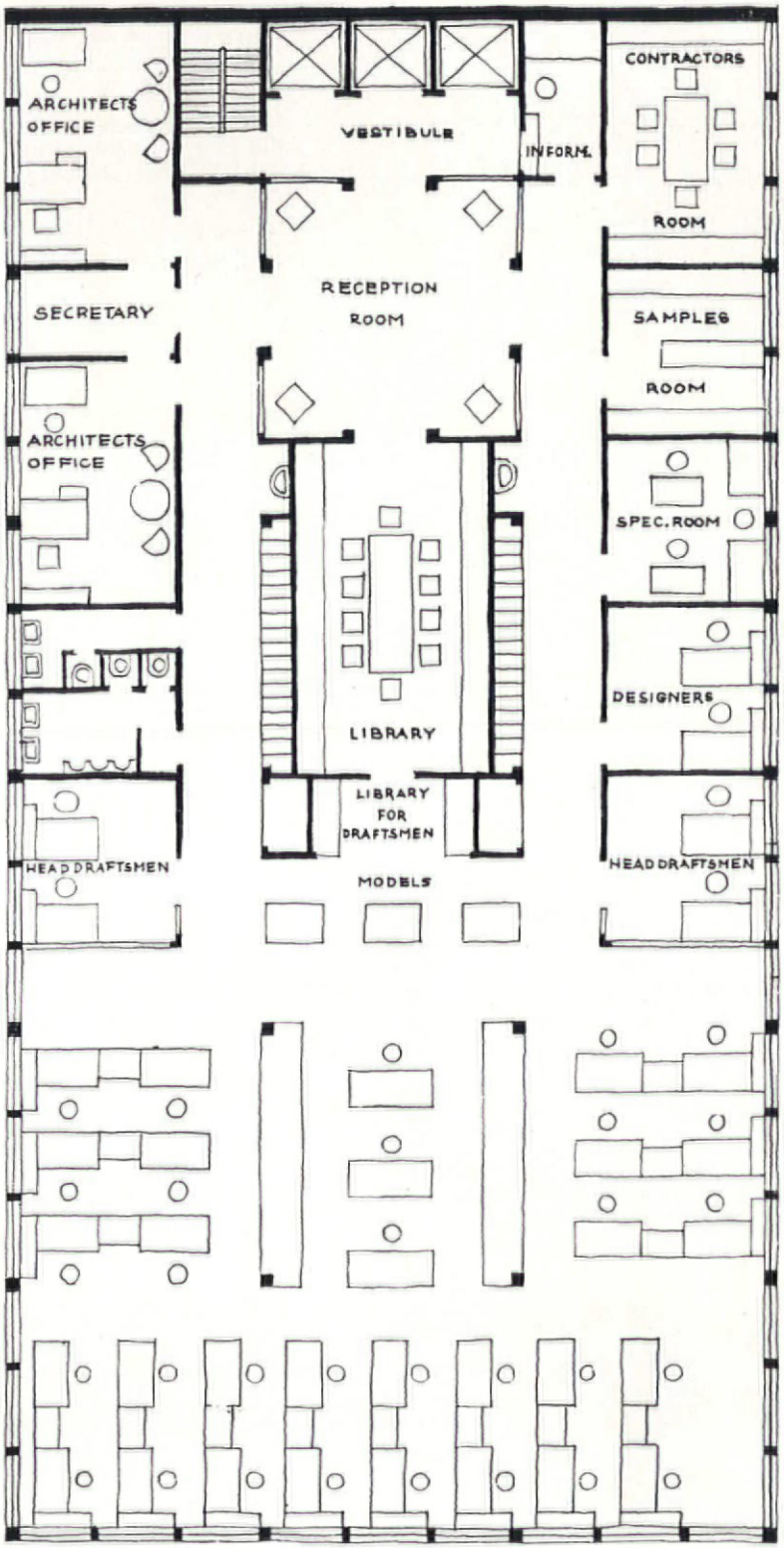




OFFICE LAYOUT
WALKER & WEEKS
ARCHITECTS
CLEVELAND OHIO

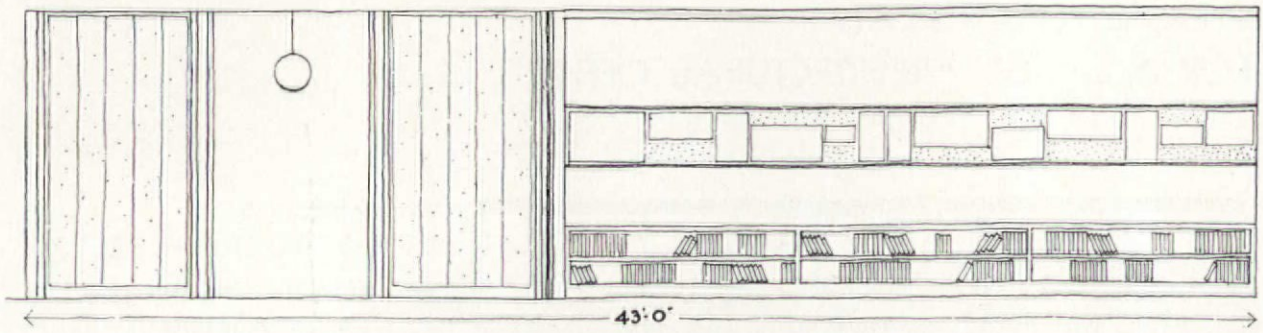
Each job or commission is placed in charge of an executive and a designer with a job captain and suitable corps of draftsmen. The six designers' offices are located opposite those of the executives in charge, with the drafting force for the job between them. All drawings are maintained in files in the drafting room and made readily accessible to the executives, designers and draftsmen.

TYPICAL FLOOR PLAN
FOR A LARGE ARCHITECTURAL OFFICE



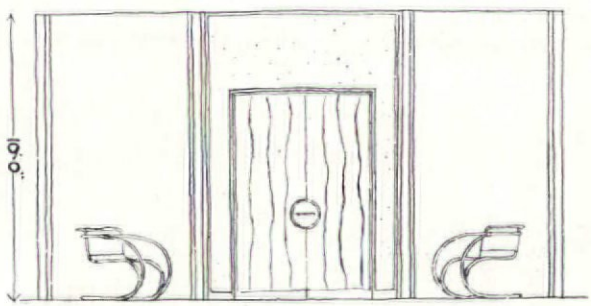
DESIGNED FOR
THE ARCHITECTURAL RECORD
BY HELMUT HENTRICH,
ARCHITECT

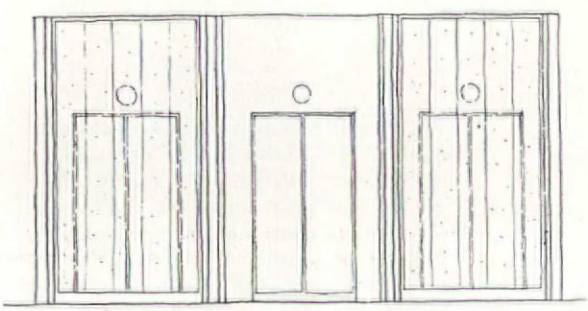
The firm of two members is assumed to employ 30 draftsmen in addition to the head draftsmen, specification writers, designers and others. The aim was to give each man as much outside light as possible. Consequently the reception room and library are placed inside and illuminated artificially.



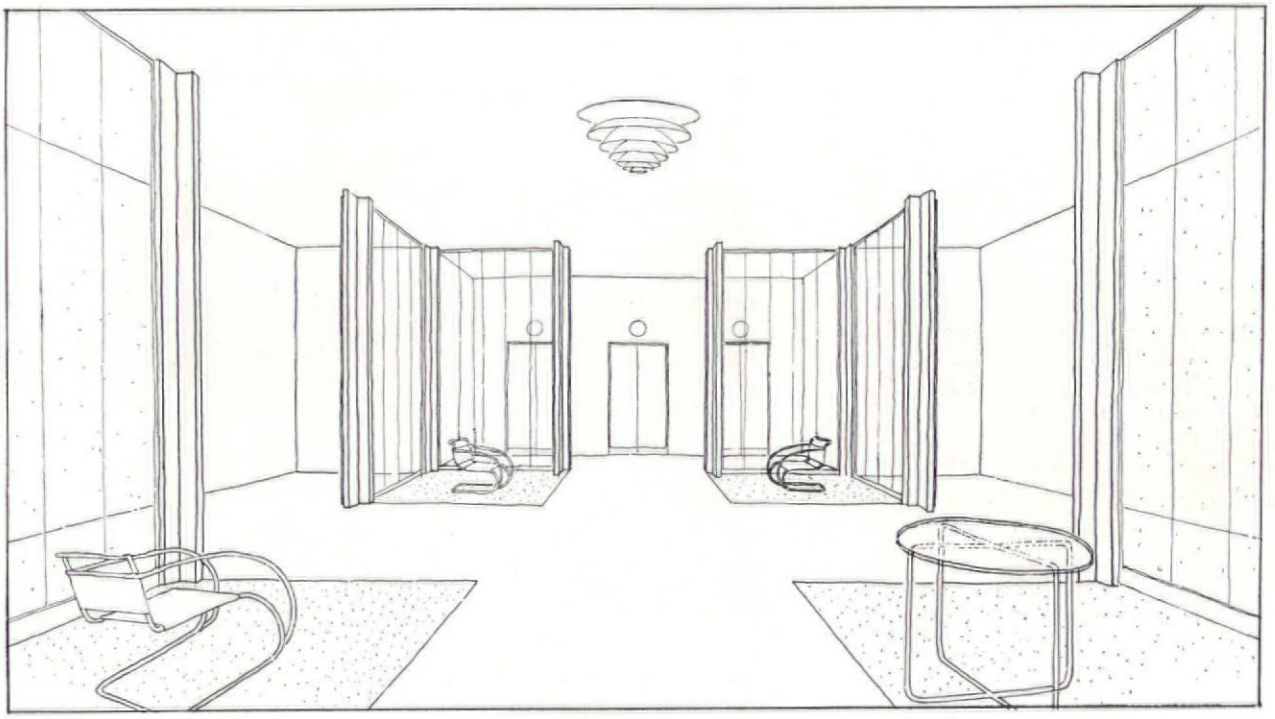
AN ARCHITECTURAL OFFICE, HELMUT HENTRICH, ARCHITECT

The library is painted a light color. Overhead light through frosted glass as shown on next page. Table top is plate glass. Chairs are of MR (Mies van der Rohe) design, steel chromium-plated. Along the walls above the bookcases cork boarding permits the display of photographs and plans of executed buildings.

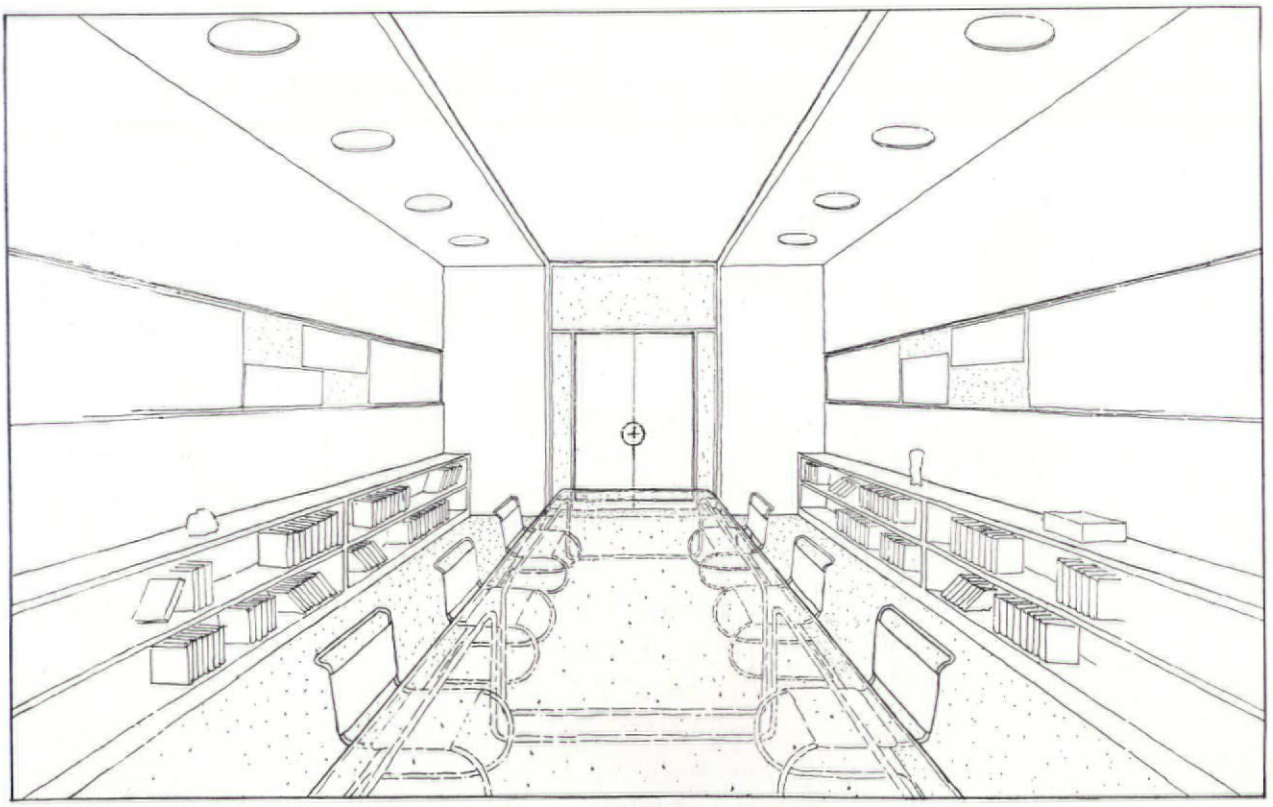




Walls of the reception room are of colored transparent glass. The wall between library and reception room is of opaque glass. The glass is held in place by aluminum-plated steel columns. Floor in black and gray linoleum. Illumination from PH lighting fixture. Chairs and tables are of MR (Mies van der Rohe) design.



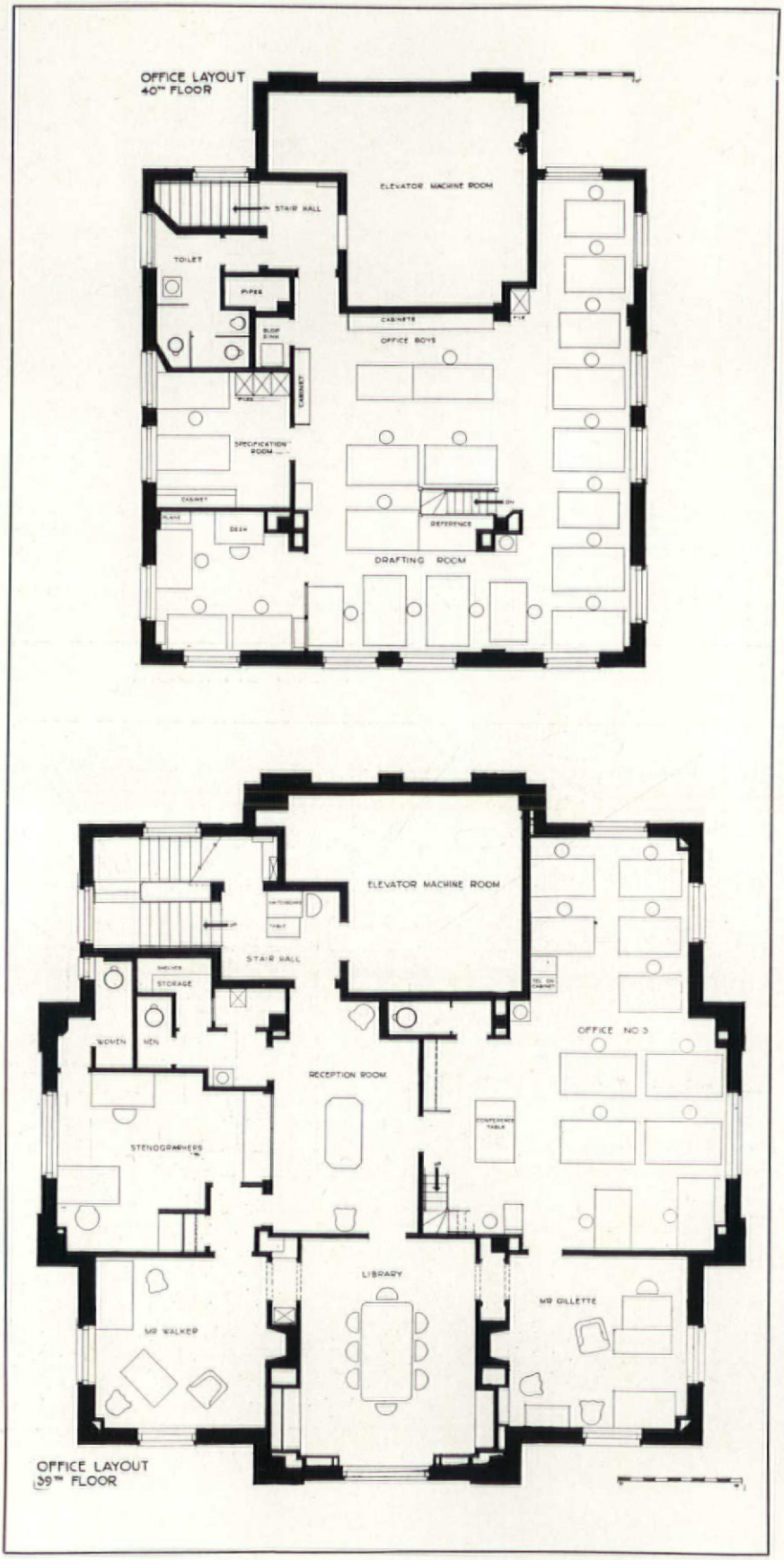
RECEPTION ROOM



LIBRARY

AN ARCHITECTURAL OFFICE, HELMUT HENTRICH, ARCHITECT

". . . . . On the lower floor is the entrance hall where the telephone operator receives visitors, also the general business office, library and private offices. . . . On the floor above is a private room for the specification writer. In one corner the heads of the drafting room have their tables and one stenographer takes care of their messages and letter writing. We find this arrangement works out much better than any we have had before, as the stenographer can relieve the job captains of much detail . . . The filing of drawings is done in specially made pasteboard boxes, except for current jobs."



OFFICE OF
WALKER AND GILLETTE
ARCHITECTS
NEW YORK

THE UNIVERSITY BRIDGE AT PHILADELPHIA

PAUL P. CRET
ARCHITECT

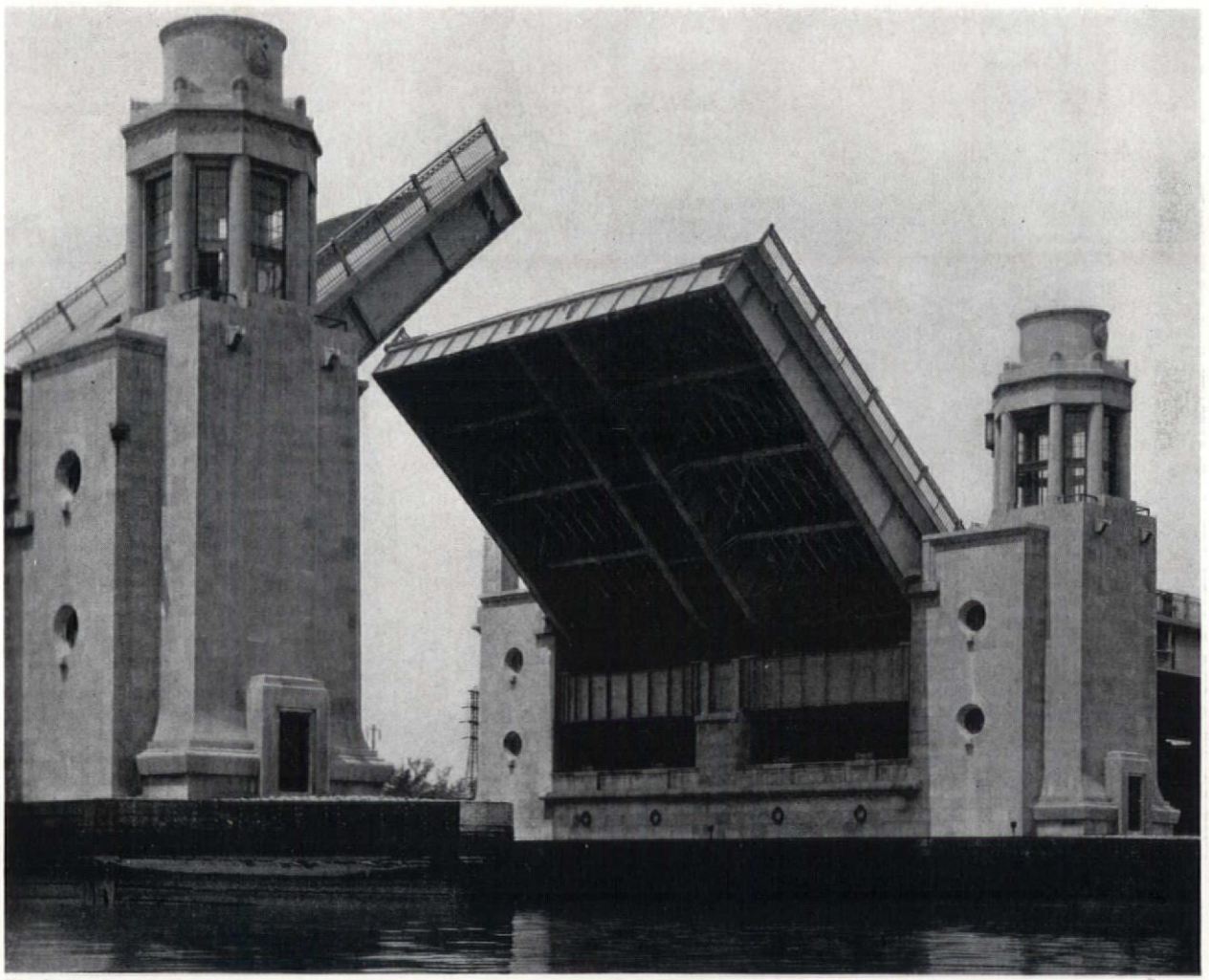


Photo. Rittase

DRAWGATES

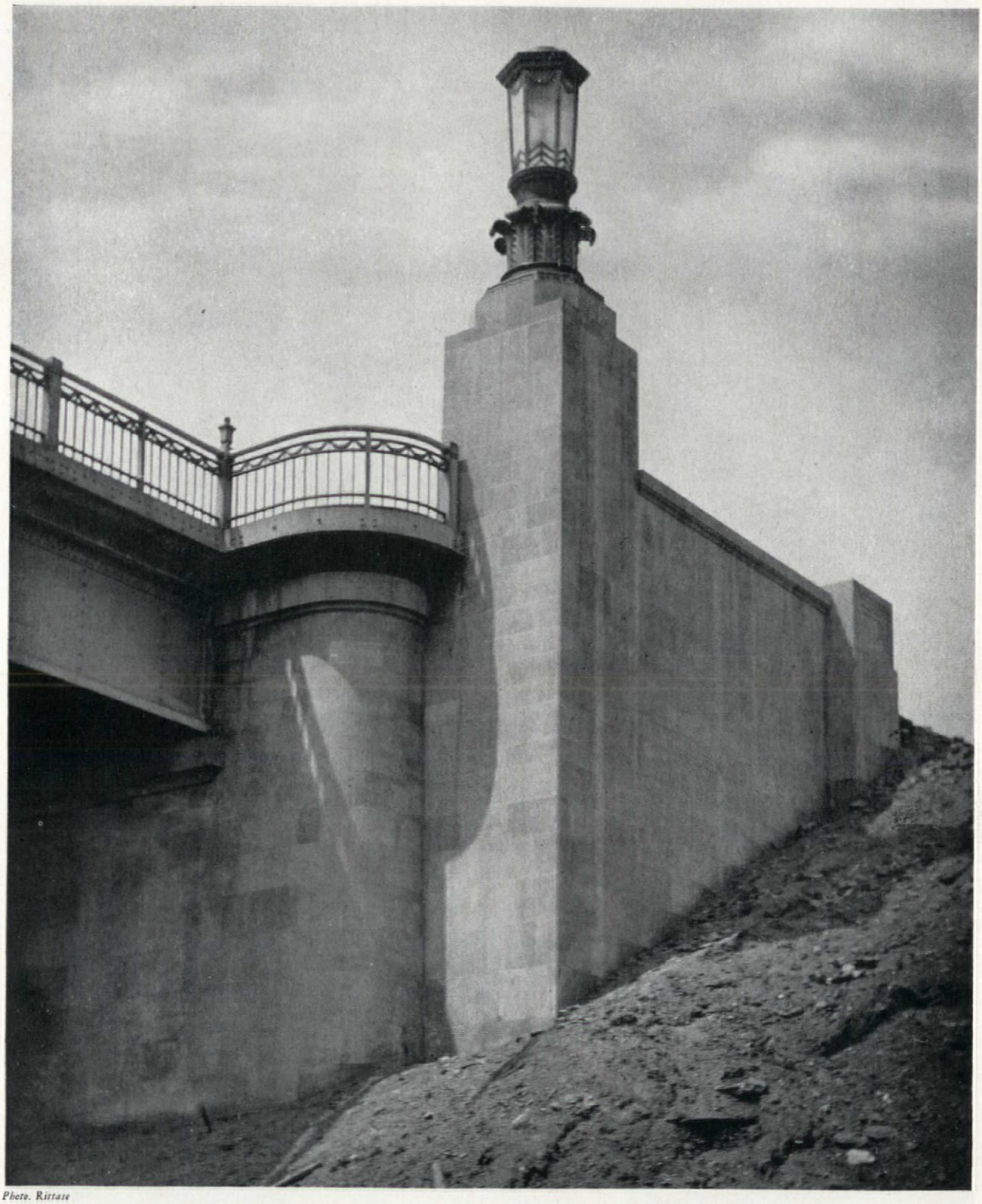


Photo. Rittase

THE UNIVERSITY BRIDGE AT PHILADELPHIA
PAUL P. CRET, ARCHITECT

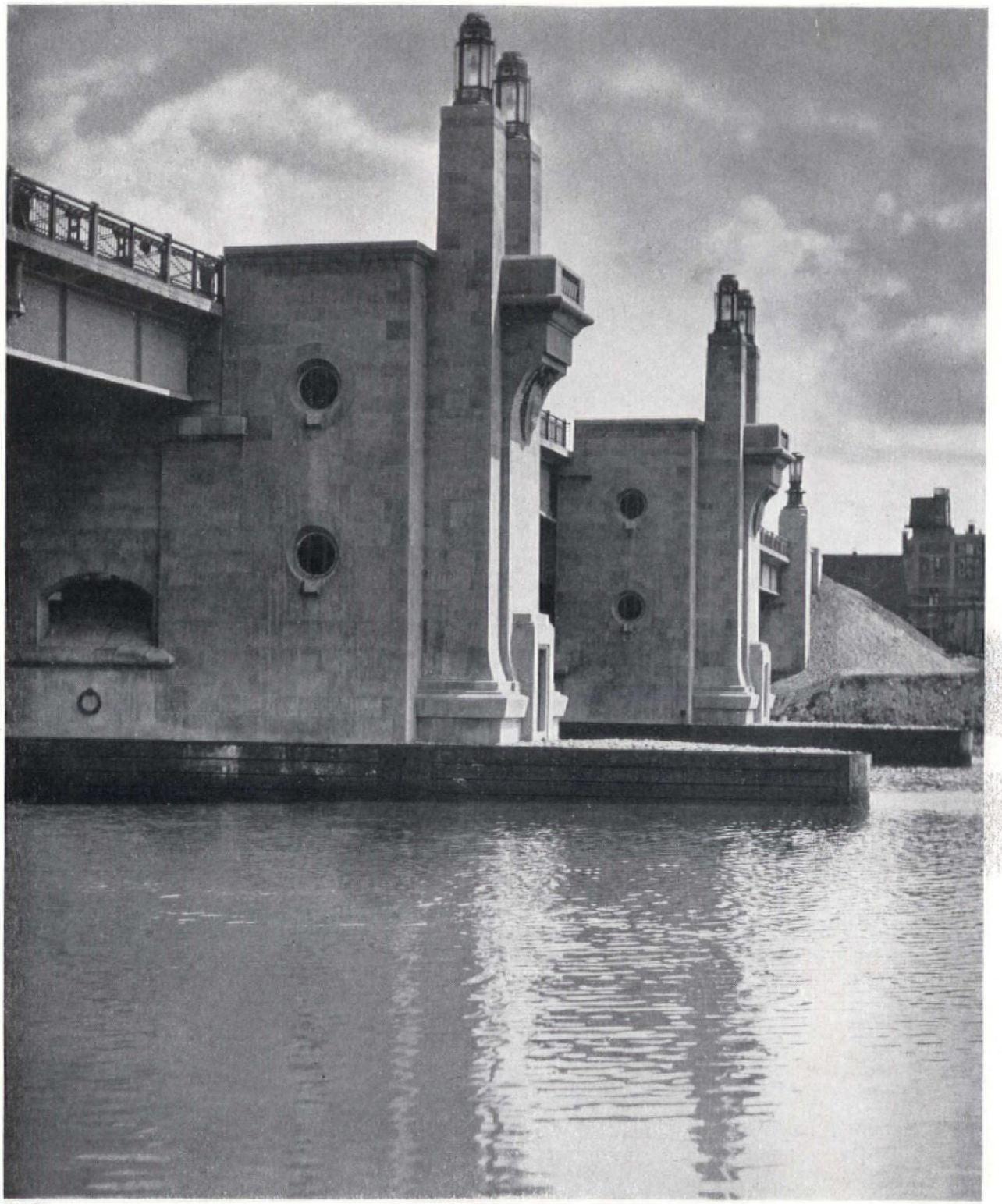


Photo. Ritzau

THE UNIVERSITY BRIDGE AT PHILADELPHIA
PAUL P. CRET, ARCHITECT



Photo. Rittase

THE UNIVERSITY BRIDGE AT PHILADELPHIA
PAUL P. CRET, ARCHITECT

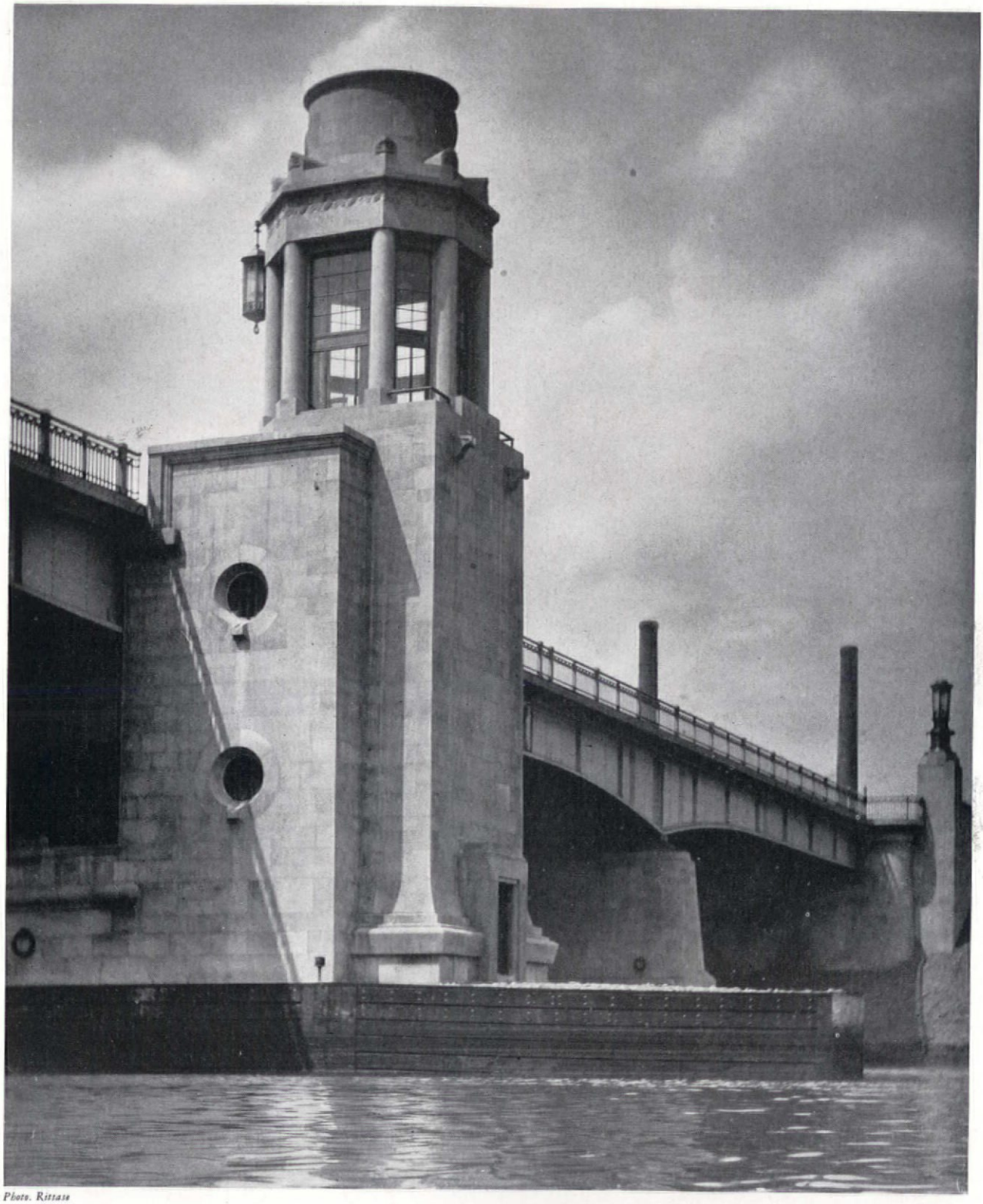


Photo. Rittase

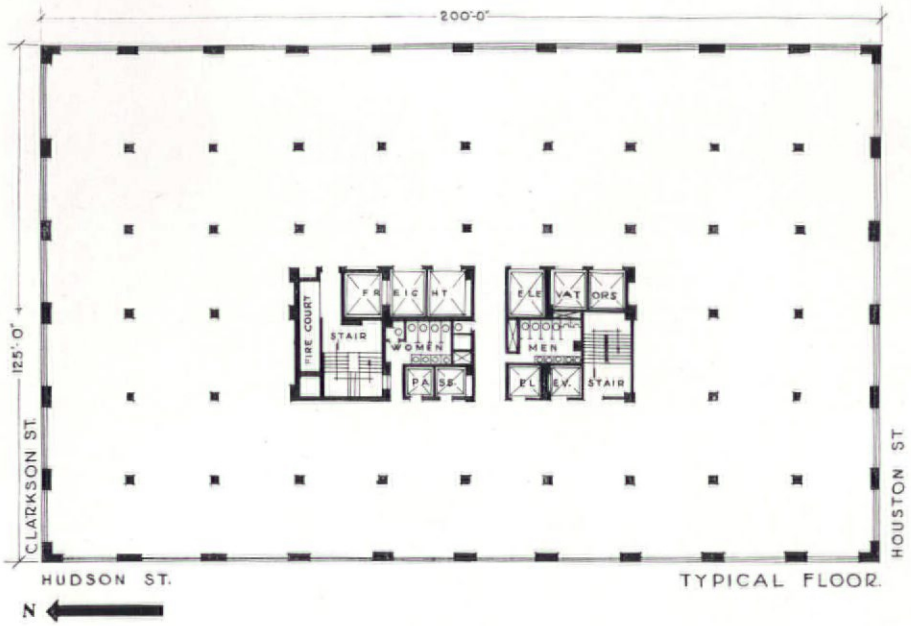
THE UNIVERSITY BRIDGE AT PHILADELPHIA
PAUL P. CRET, ARCHITECT



Photo. Rittase

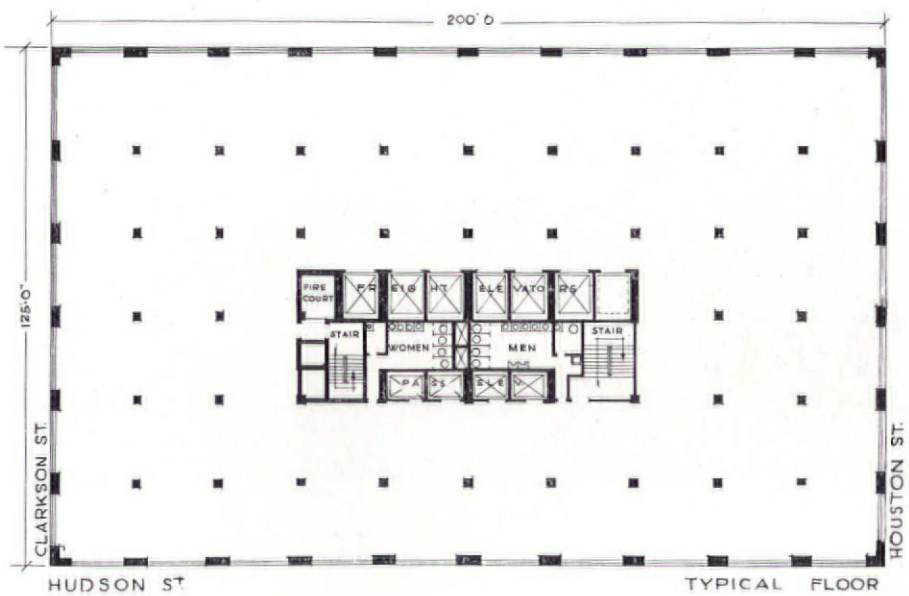
THE UNIVERSITY BRIDGE AT PHILADELPHIA
PAUL P. CRET, ARCHITECT

NOTES ON DRAFTING AND DESIGN



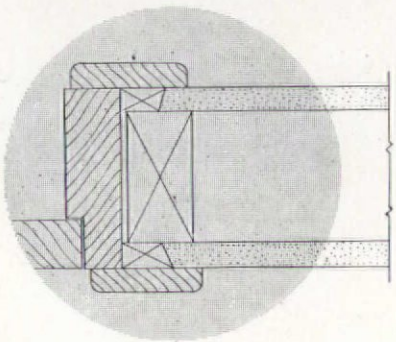
TYPICAL SOLUTION FOR THE LOFT BUILDNG

Floor plan studies of a proposed building for offices and heavy manufacturing in a vehicular tunnel section of Manhattan. Passage, stairway and facilities to occupy minimum of floor area and permit subdivision of floors with a minimum waste of cargo space. Toilets and stairs arranged for a maximum occupancy of 240 persons per floor. Plot is 200' x 125'. Three sides of building face on streets and one on low public building insuring permanent light on upper floors. Distance between columns is 20' and farthest distance from daylight from 40' to 50'. Floor area is 25,000 and total area 400,000 square feet, the building being 16 stories high.



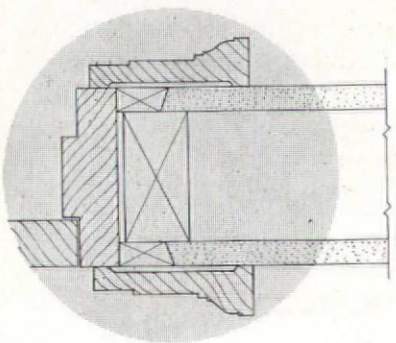
VICTOR MAYPER
ARCHITECT

ARCHITECTURAL MORPHOLOGY
EVOLUTION OF DOOR FRAME CONSTRUCTION



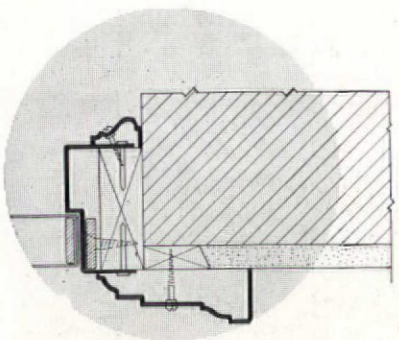
1

Wood construction. Unity of purpose, construction, tools, material, and form. Six separate units. Complex construction. Simple tools.



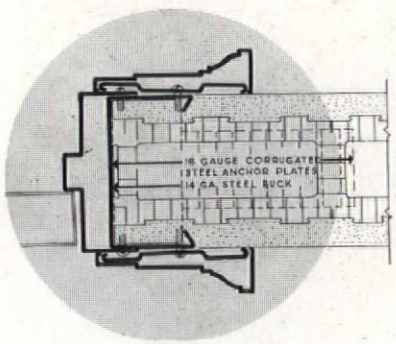
2

Arbitrary forms derived from stone architecture imposed on the construction. The projecting forms have not added anything to the purpose of the frame or to the ease of construction.



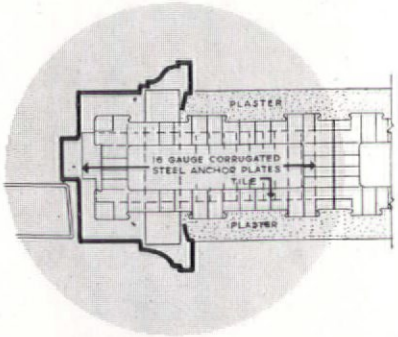
3

Steel door and frame with wood buck. The steel construction follows the traditional wood construction (use of screws). Gain: increased fire resistance and elimination of shrinkage. But the construction involves two trades and has become more complicated. Poor anchorage.



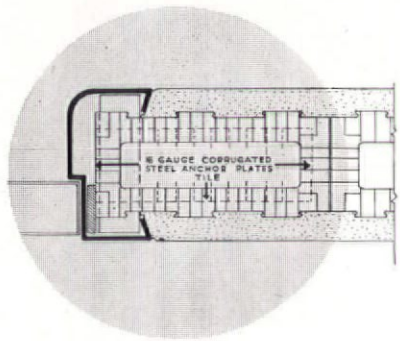
4

All steel construction. New materials do not necessarily generate new forms. The conventional forms, arbitrarily passed on from stone over wood to steel have only been slightly modified by the new tools and by the limitations of the new material (the slightly rounded corners). Good anchorage. The concealed clip-fastening an innovation conditioned by the new material. Complex construction. Complex tools.



5

UNITRE frame. Elimination of material. Buck, frame and casing one unit erected with the wall. The arbitrary forms still remain although slightly simplified.

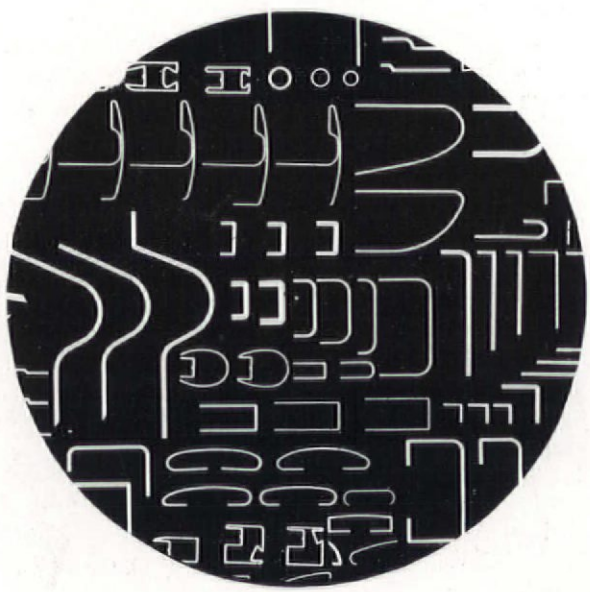


6

UNITRE frame. Again: unity of purpose, construction, manufacturing process, material, and form. A good solution of a clearly stated problem. Instead of six separate units—one fireproof, non-shrinking, factory made unit, erected as an integral part of the wall with a minimum of material and labor. Simple construction. Complex tools.

Below: Metal profiles from a manufacturer's catalog. Left: Architectural profiles. An indefinite number of variations of the same arbitrary form elements. Right: Profiles for showcases, display windows, etc. A great variety of forms created by clearly stated problems and determined by this specific purpose, construction, material, and tools.







English chair, 17th century



Steel chair by MARCEL BREUER
Bauhaus Dessau, Germany, 1926



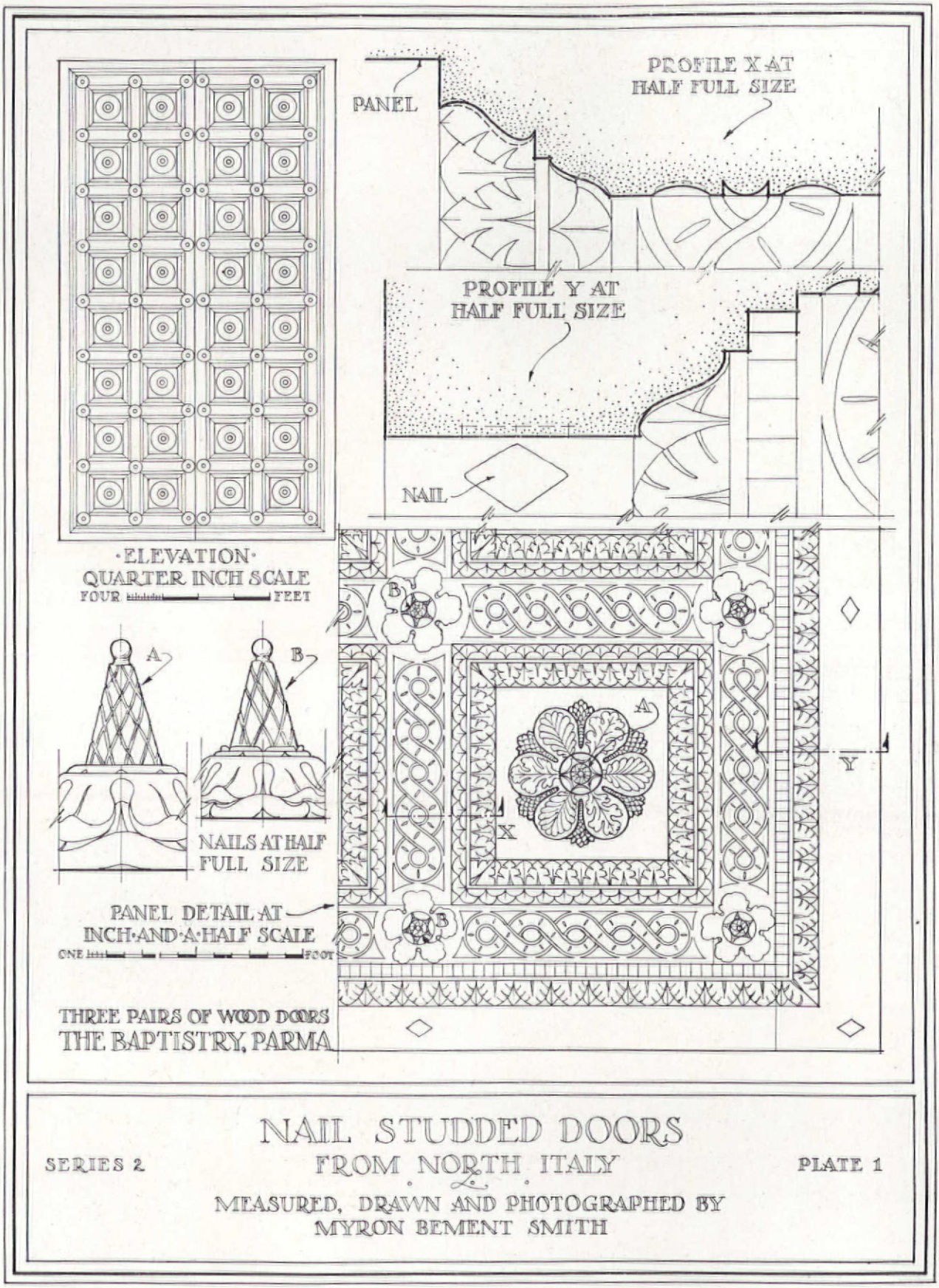
GENERAL VIEW

RENAISSANCE DOORS
FROM THE BAPTISTRY, PARMA, ITALY

NAIL STUDDED DOORS FROM NORTH ITALY

Second Series. (First series appeared in the June, 1930 issue)

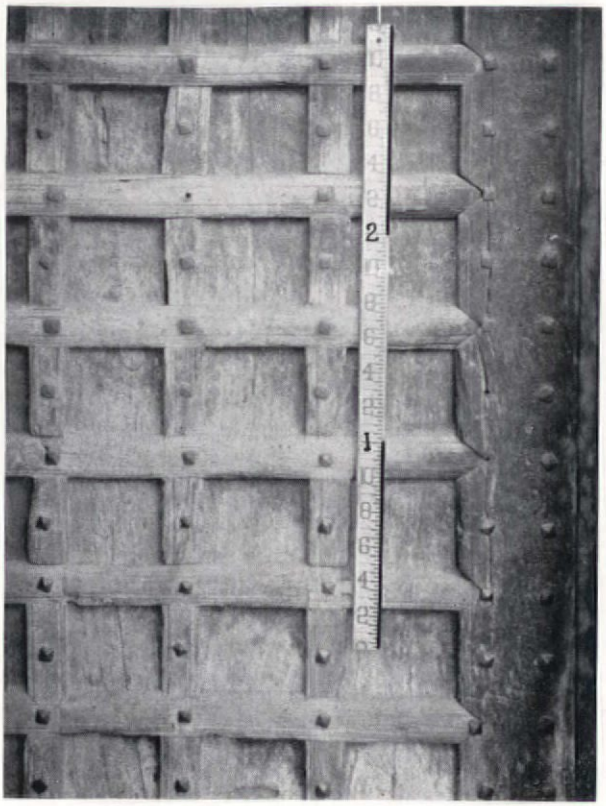
MEASURED, DRAWN AND
PHOTOGRAPHED
BY MYRON BEMENT SMITH



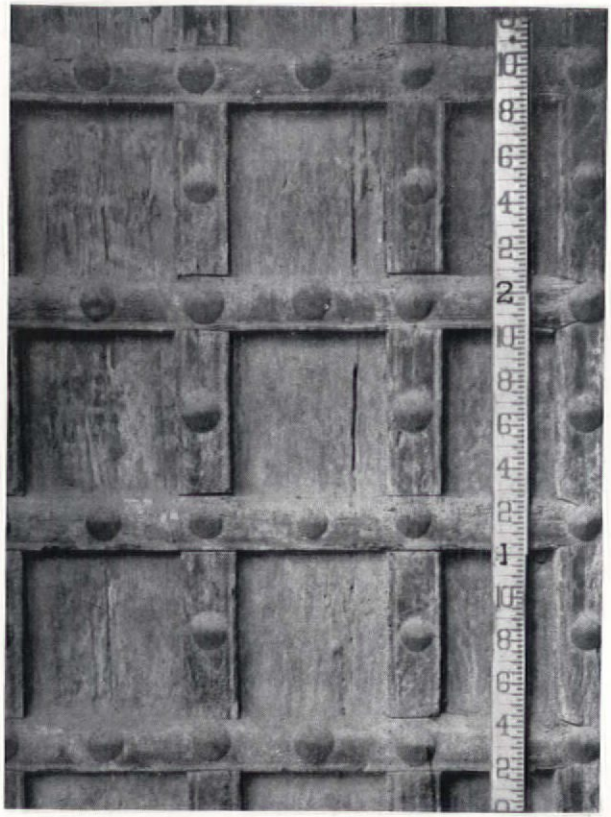
NAIL STUDDED DOORS
FROM NORTH ITALY

SERIES 2. PLATE 1

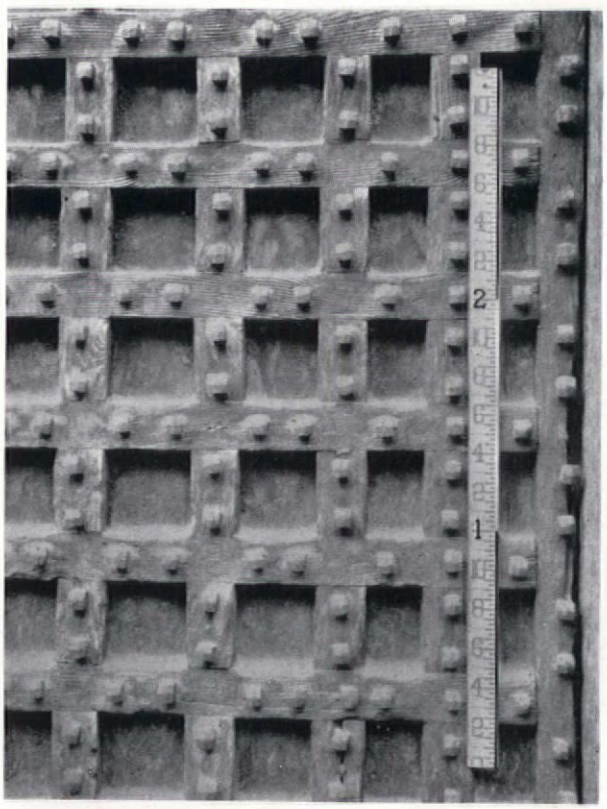
MEASURED, DRAWN AND PHOTOGRAPHED BY
MYRON BEMENT SMITH



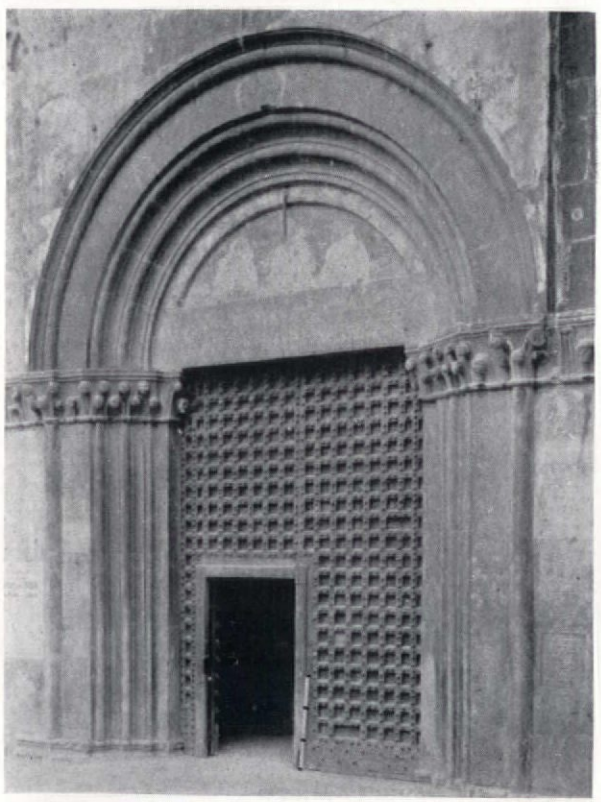
DETAIL OF LEFT DOOR,
THE CATHEDRAL, PIACENZA



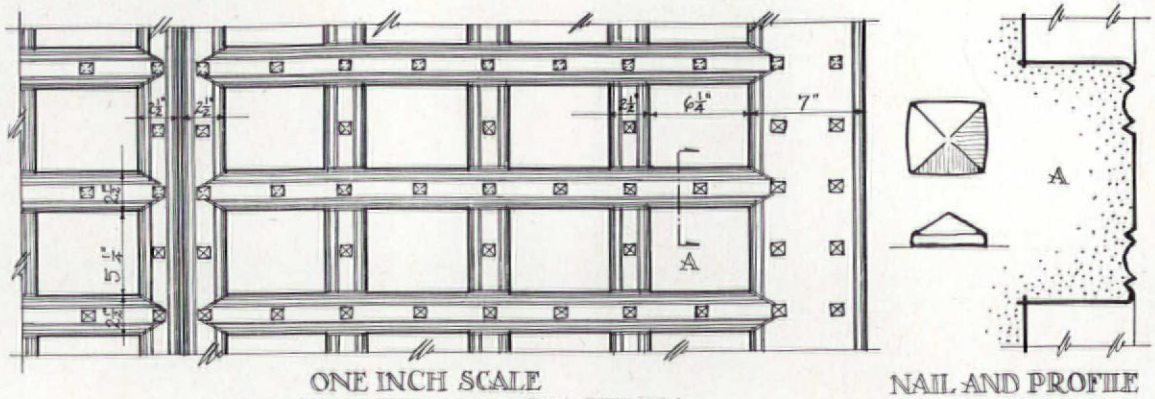
DETAIL OF RIGHT DOOR,
THE CATHEDRAL, PIACENZA



DETAIL OF DOOR,
S. FRANCESCO, BRESCIA

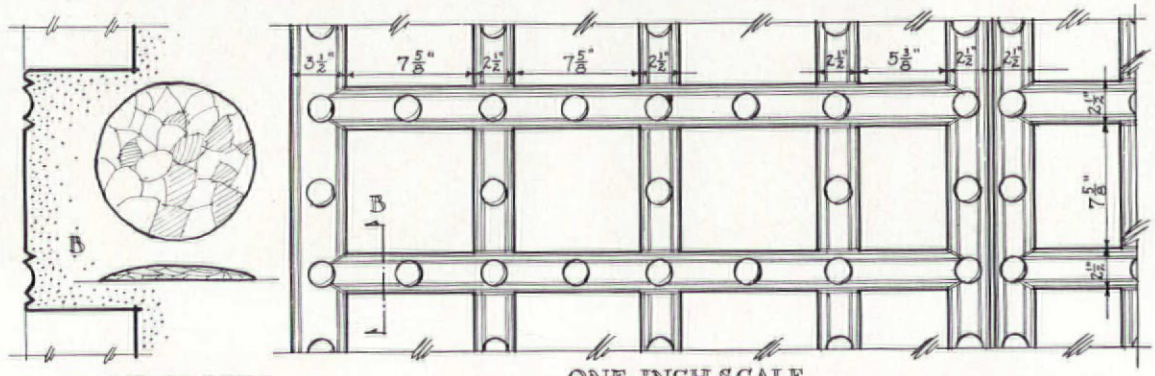


GENERAL VIEW OF DOORWAY,
S. FRANCESCO, BRESCIA



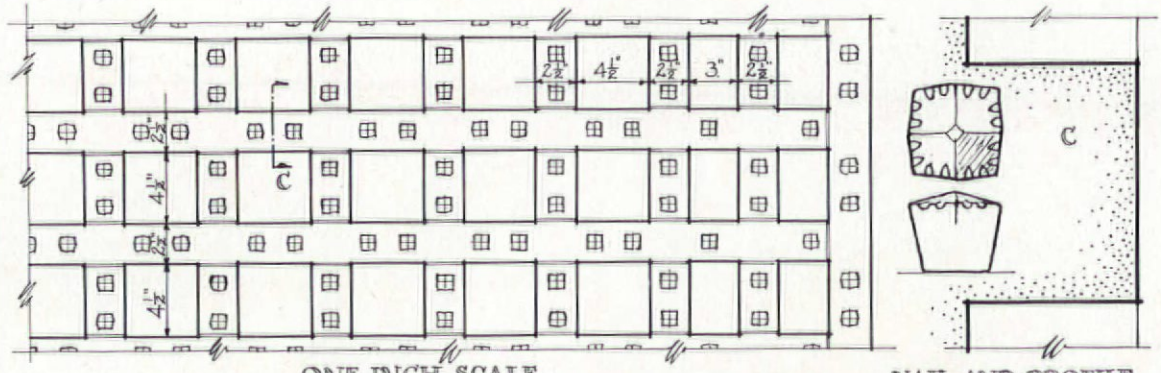
ONE INCH SCALE
THE CATHEDRAL, PIACENZA

NAIL AND PROFILE
AT HALF FULL SIZE



NAIL AND PROFILE
AT HALF FULL SIZE

ONE INCH SCALE
THE CATHEDRAL, PIACENZA



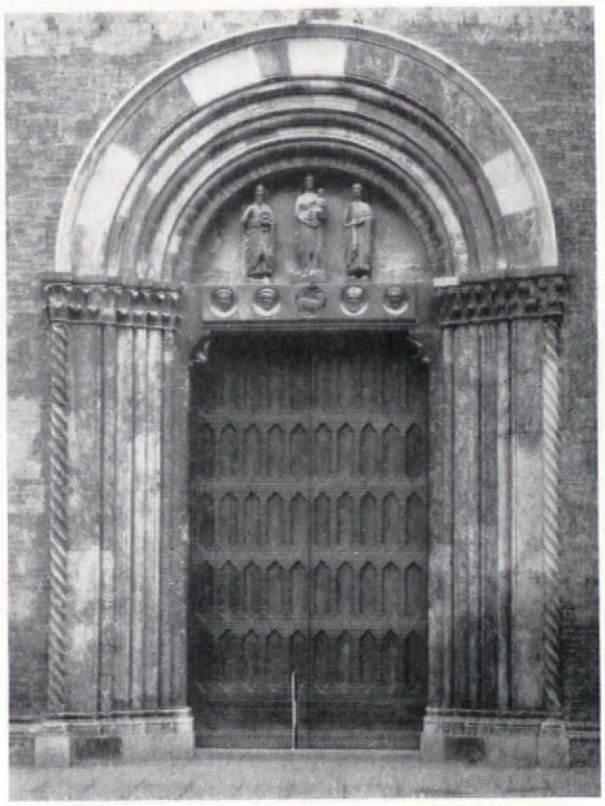
ONE INCH SCALE
S. FRANCESCO, BRESCIA

NAIL AND PROFILE
AT HALF FULL SIZE

NAIL STUDDED DOORS
FROM NORTH ITALY

SERIES 2 — PLATE 2

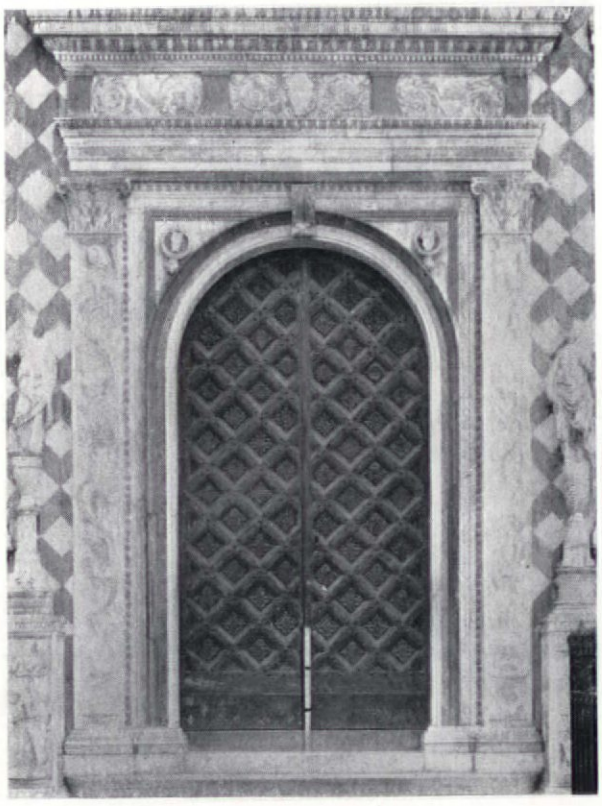
MEASURED, DRAWN AND PHOTOGRAPHED BY
MYRON BEMENT SMITH



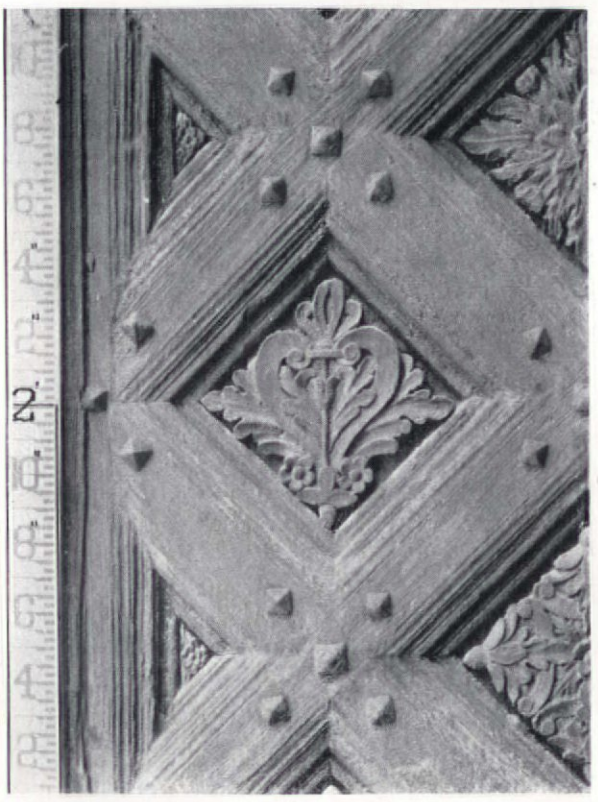
GENERAL VIEW OF DOORWAY,
THE CATHEDRAL, CREMA



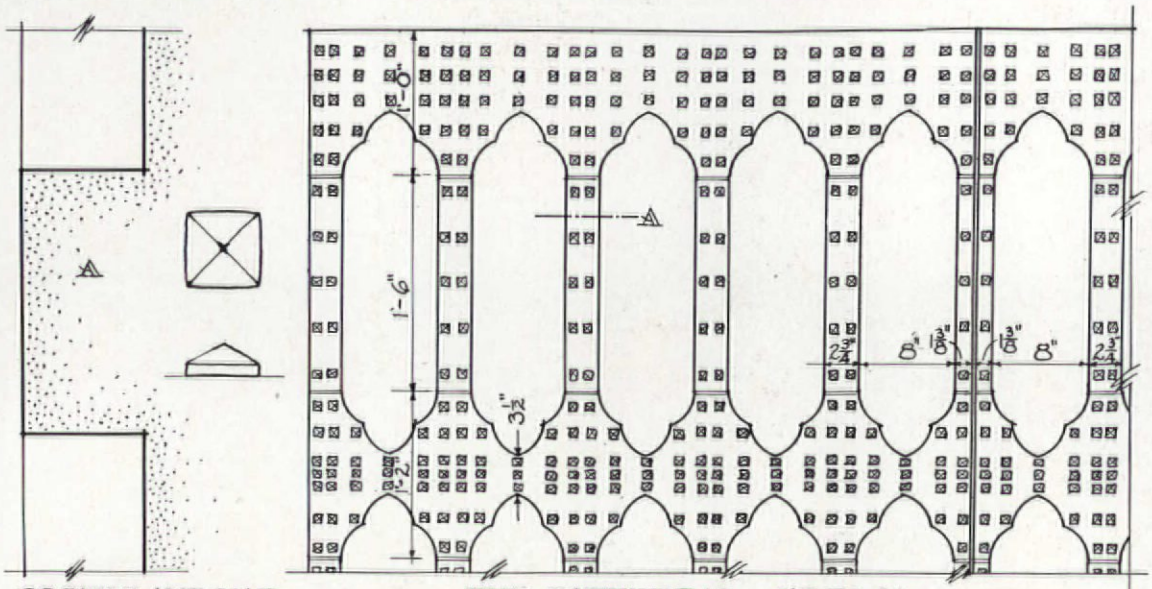
DETAIL OF DOOR,
THE CATHEDRAL, CREMA



GENERAL VIEW OF DOORWAY,
COLLEONI CHAPEL, BERGAMO



DETAIL OF DOOR,
COLLEONI CHAPEL, BERGAMO

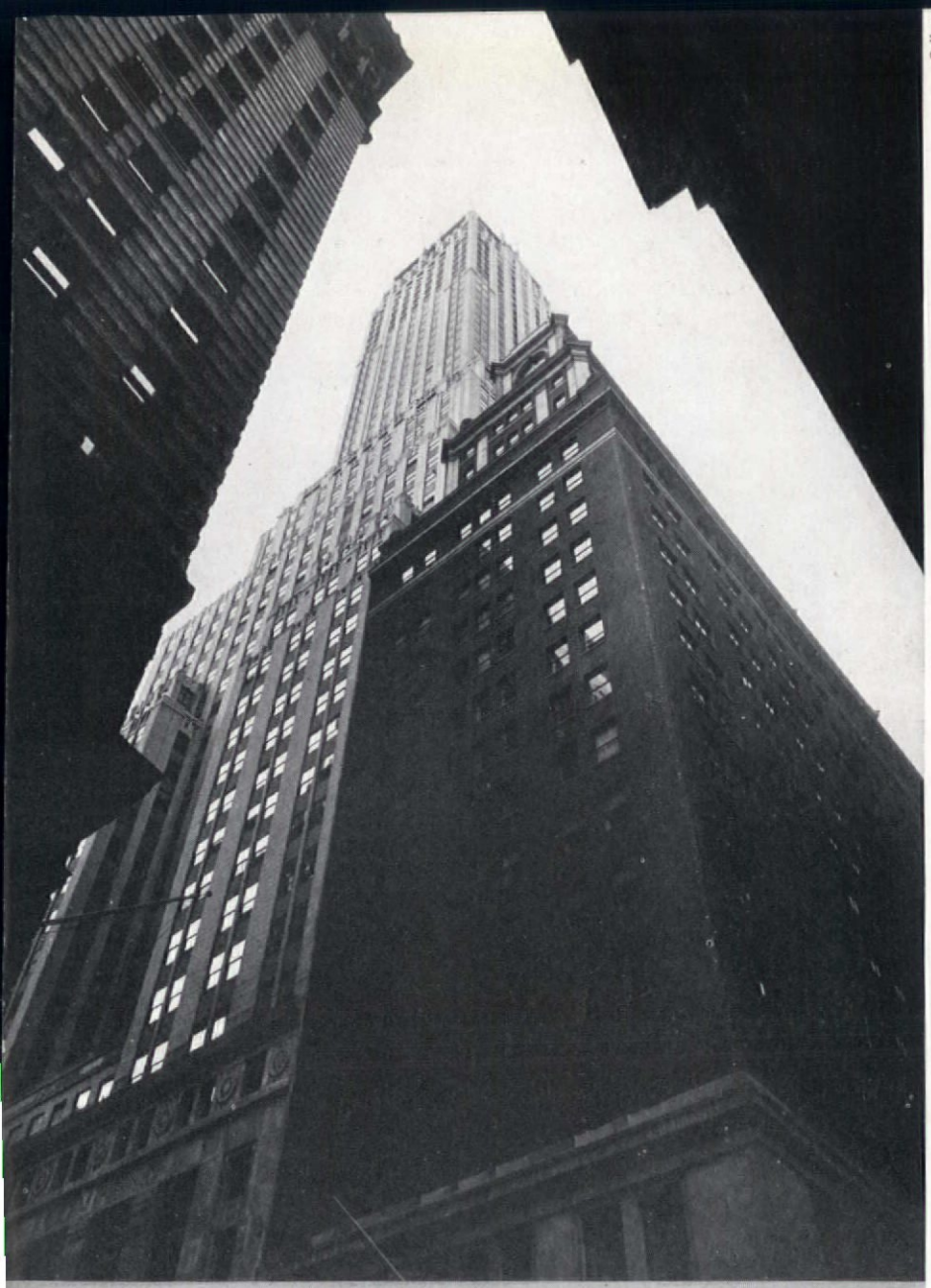


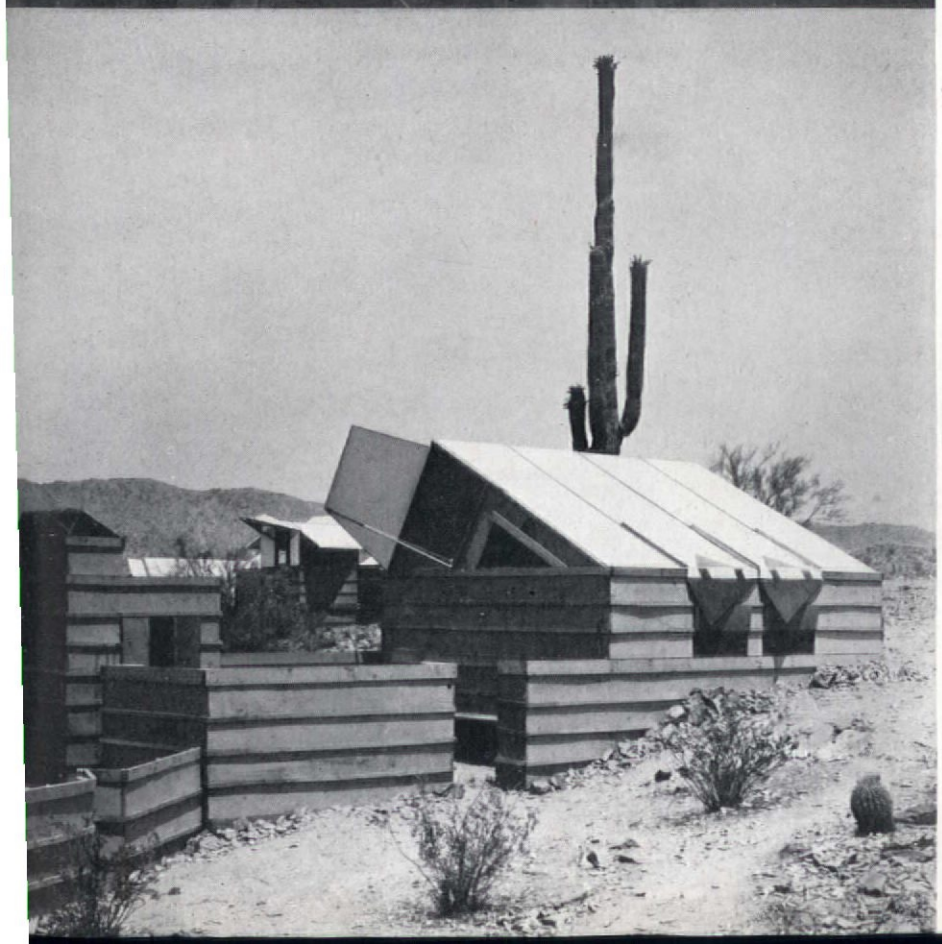


NAIL STUDDED DOORS

SERIES 2. FROM NORTH ITALY PLATE 3

MEASURED, DRAWN AND PHOTOGRAPHED BY
MYRON BEMENT SMITH





THE ARCHITECTURAL RECORD: AUGUST
TECHNICAL NEWS AND RESEARCH

THE WEEK-END HOUSE

BY KNUD LÖNBERG-HOLM

NEXTH MONTH

RESTAURANTS, CAFETERIAS, COFFEE SHOPS



Underwood and Underwood

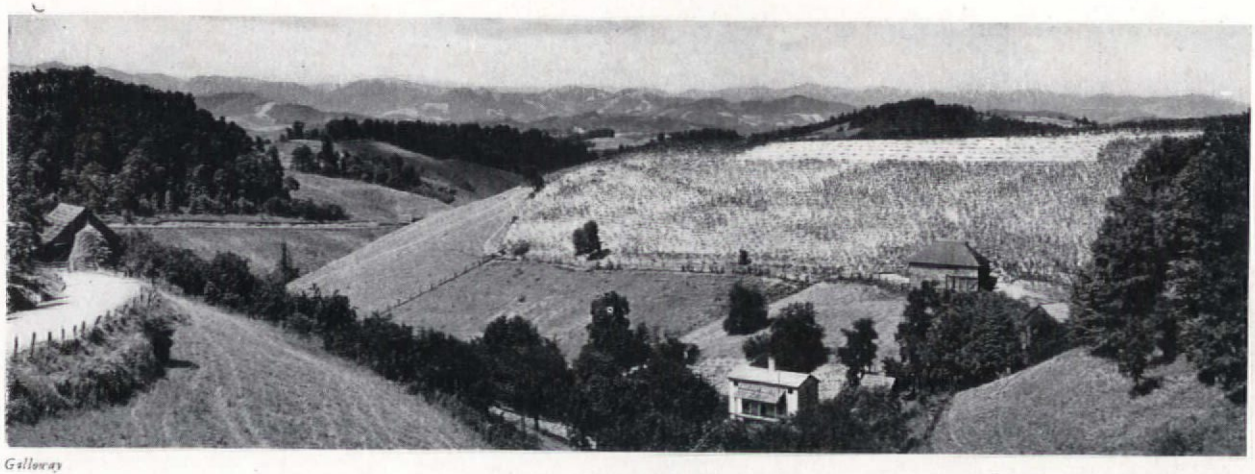


Galloway



Galloway

The week-end flight from the city to the country is a logical human reaction to the social and spatial pressure of the large city.



Galloway

THE WEEK-END HOUSE

By K. LÖNBERG-HOLM

PURPOSE

The week-end in the country provides for:

1. *A friendly and unselfish contact with nature.*
2. *Sunlight and fresh air.* (Physical health.)
3. *Relief from the congestion and pressure of the city.* (Sport, physical expansion.)
4. *A necessary balance to the increasing demands and restrictions of a commercial, competitive society.* (Psychological expansion.)

DEFINITION

The week-end house is the minimum stationary setting for a family life reduced to its simplest terms in close contact with sun, soil, and sky and freed from obsolete social and architectural forms. It is not a city residence transferred to the country, nor a suburban bungalow reduced in scale.

DESIGN CRITERIA

1. *Maximum direct contact with nature.*
2. *Minimum spatial pressure (not a box).*
3. *Maximum protection against insects, temperature, rain, and inquisitive persons.* (The log cabin was an adequate protection against hostile natives and wild animals. Wire screens are sufficient protection against mosquitoes.)
4. *Maximum ease and safety of life.*
5. *Minimum cost of construction and maintenance.* (Carrying charges operate the entire year against the limited and short occupancy.)
6. *Maximum plastic unity with surroundings.*



Galloway



World Wide Photos

1910



1930



Bonney



Bonney

Light, open structures. The right setting for a life in close and friendly contact with nature.

STOCKHOLM EXPOSITION 1930

LOCATION AND SITE

The choice of location and site should be governed by a survey covering:

1. *Climatic conditions and surrounding nature.* Suitable exposure. Proper amount of shade. Trees offer a valuable protection from winds, but if the forest is dense, the air movement is reduced to such an extent as to interfere with comfort. Underbrush, weeds and tall grass should be removed from the immediate house site, because they offer shelter to mosquitoes and flies.
2. *Topography and soil texture.* The topography of the site should be such that the slopes are steep enough to permit rapid drainage of surface water during rains. Week-end houses to be occupied in the summer preferably should be located on hillsides with an eastern exposure, while those occupied in winter should be located on hillsides with a southern exposure. An eastern exposure is valuable because the sleeping quarters will be exposed to the early morning sun without the necessity of exposing the house to the hot afternoon sun. For this reason it is desirable to locate the house on the western shores of lakes or larger streams, where it may be protected on the west by woods or by shade trees.

A soil texture that readily absorbs water is necessary to maintain a dry site. A porous soil is therefore preferable. The character of the soil and the subsurface formations have an important bearing upon the quality and the quantity of ground water available.

3. *Distance from residence and accessibility.* Means, cost and time of transportation. The site should be remote, but accessible.
4. *Distance from highways and neighbors, and size of site.* The house should be surrounded by protective vacant area, which will furnish necessary privacy.
5. *Available facilities.* Water, food supplies, sewage disposal, etc.
6. *Cost or rent of site.*
7. *Cost of available building materials and labor.*

LAYOUT

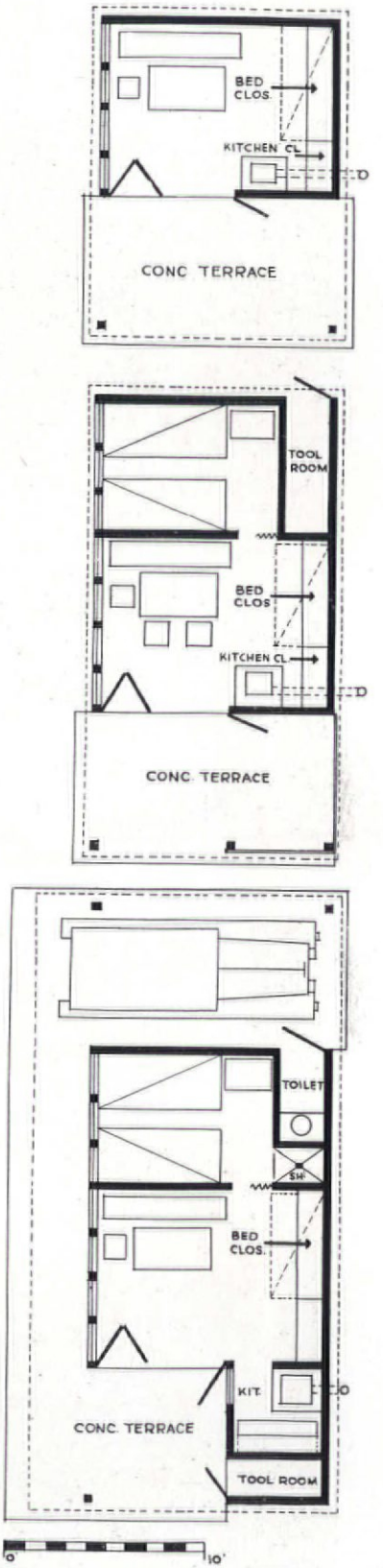
ELEMENTS:

1. *A shelter against heat, cold, rain, and insects.*
2. *A place for sunbath.*
3. *A place to prepare the food.*
4. *A place to eat.*
5. *A place to sleep.*
6. *A place to dress.*
7. *A place to wash.*
8. *Sanitary accommodations.*
9. *Storage space for baggage.*
10. *Storage space for food supplies.*
11. *Parking space for cars.*

The layout should be made with a minimum of means. The space used by day should be convertible for use by night in order to reduce the cost of the structure. Accommodations for guests should be provided. Privacy at night should be insured the owner.

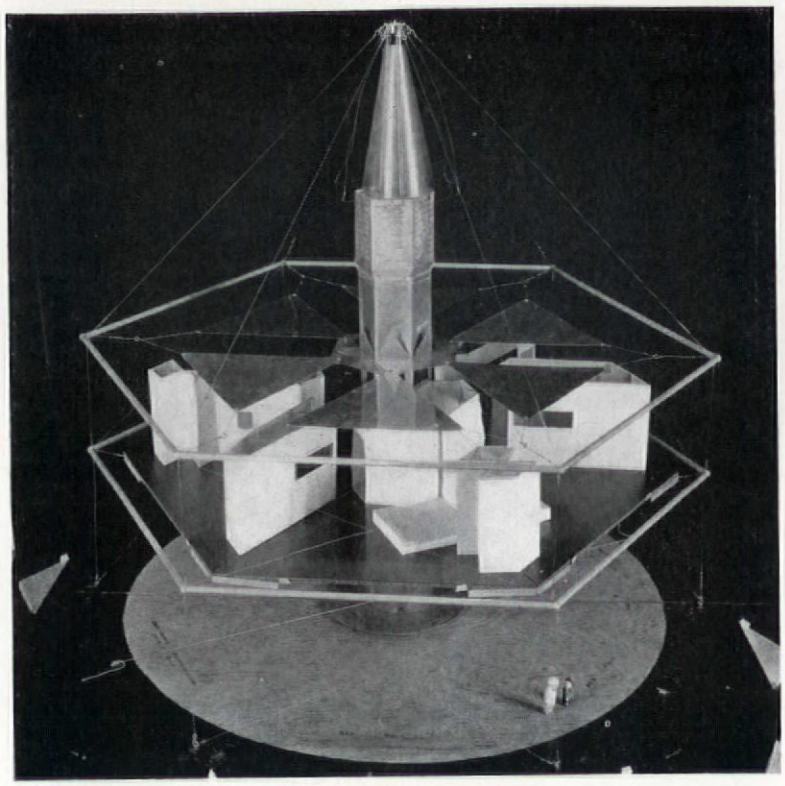
A minimum of fifty square feet of floor space and five hundred cubic feet of air space for each occupant exclusive of space for storage of clothes and sanitary purpose is recommended.

Provision should be made for parking of cars. The simplest solution is an open parking space or the use of canvas covers. If the house is located on a slope or is raised from the ground, a covered parking space can be provided under the house.



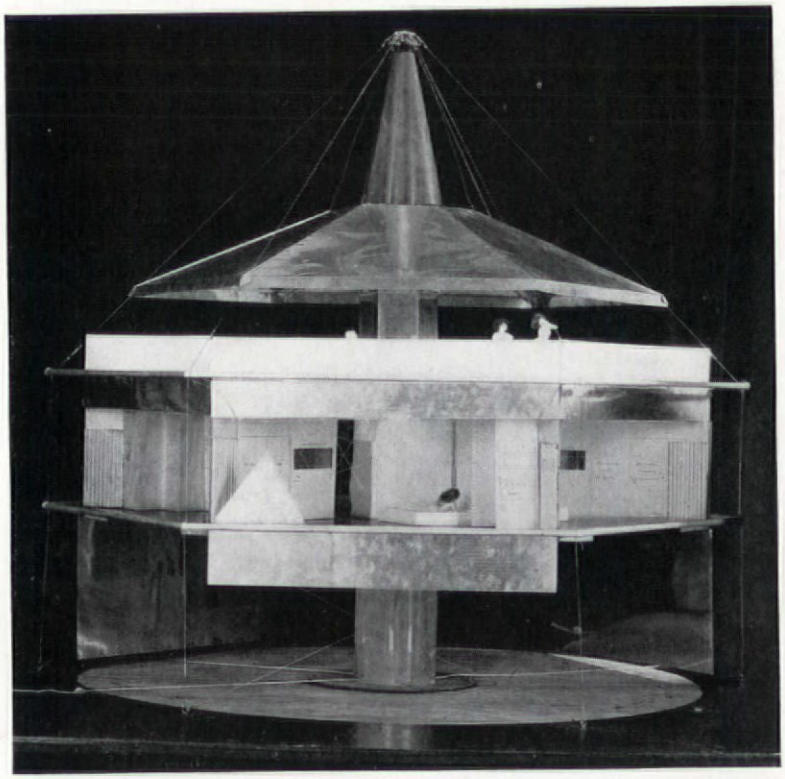
New units can easily be added to this week-end house.

RICHARD WEBER, Architect



A rational construction erected with a minimum of labor. Model for the DYMAXION HOUSE designed by R. BUCKMINSTER FULLER.

Partially assembled structure showing mast and six radial tension cables carrying entire weight; hexagonal arrangement of horizontal tubular compression struts, flexibly joined; metallic tension webbing floor supports uncovered on top deck and covered on lower deck by pneumatic duralumin bladders topped off by black bakelite deck; breathing louvres at masthead and translucent partition walls.



Finished structure showing duralumin awning, central mast with elevator and vertical grouping of conduits for heat, light, air, disposal and water; translucent non-breakable panes inclosing vacuums for outer walls; translucent ceilings; a bedroom indirectly floodlighted with one triangular metallic window shutter partially drawn; parking space under the house; the whole structure suspended from the mast.

CONSTRUCTION

The construction should be governed by:

1. *Specific function.*

   The structure should shed the rainwater easily, should admit a maximum of sunlight and fresh air, and should provide maximum visibility from the inside.

   The construction should therefore provide a maximum of window space and openings screened against insects and protected from rain. The construction should insure maximum flexibility of the plan for the purpose of full utilization of the space by day and by night. (Use of folding partitions, dividing curtains, etc.) It should easily expand to take care of guests. Additional space can be provided by means of screened porches, utilization of roof for sleeping porches or temporary tents.

2. *Initial cost.*

   The initial cost should be as small as possible without the use of inferior construction or material. (The construction should be substantial in order to obtain easy loans.) The structure should therefore be erected without expensive labor and in the shortest possible time. The erection should be reduced to easy assembly of ready-made and easily handled units by the owner or by unskilled local labor.

3. *Cost of maintenance and cleaning.*

   Week-end houses will be exposed to more severe weather conditions than will the city house. They must be shut up for long periods without care. When opened they must be ready for immediate use despite the neglect to which they inevitably will be subjected.

   Screens, awnings, tent extensions, and flies should be stored away during the unoccupied season with maximum ease. Openings should be protected with shutters and the structure made inaccessible. The house should be easily cleaned. All inaccessible dirt corners should be avoided.

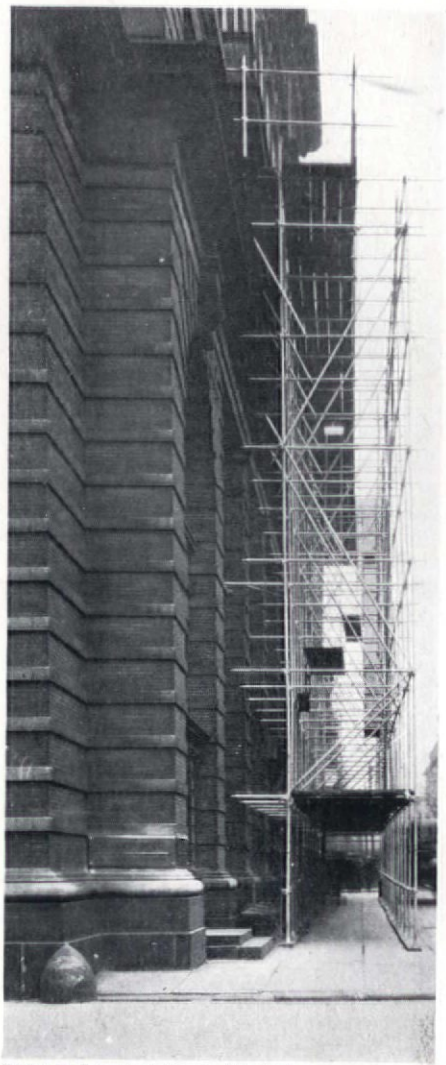
4. *Climatic conditions and local codes.*

MATERIAL

1. *All materials used for the structure and the equipment should be manufactured and transported with minimum cost.*
2. *They should be easily erected, replaced or repaired.*
3. *They should be moderate in first cost, but durable enough to go along for years without painting or appreciable repairs and replacement.*
4. *They should be proof against the attack of fungi, insects and rats.*
5. *They should be impervious to water and resistant to fire and atmospheric conditions* (corrosive action of salt air at seashores). *All metals should be non-corrosive.*
6. *All surfaces should be easily cleaned.*
7. *The number and quantity of materials used should be reduced to a minimum for the sake of economy and visual unity.*

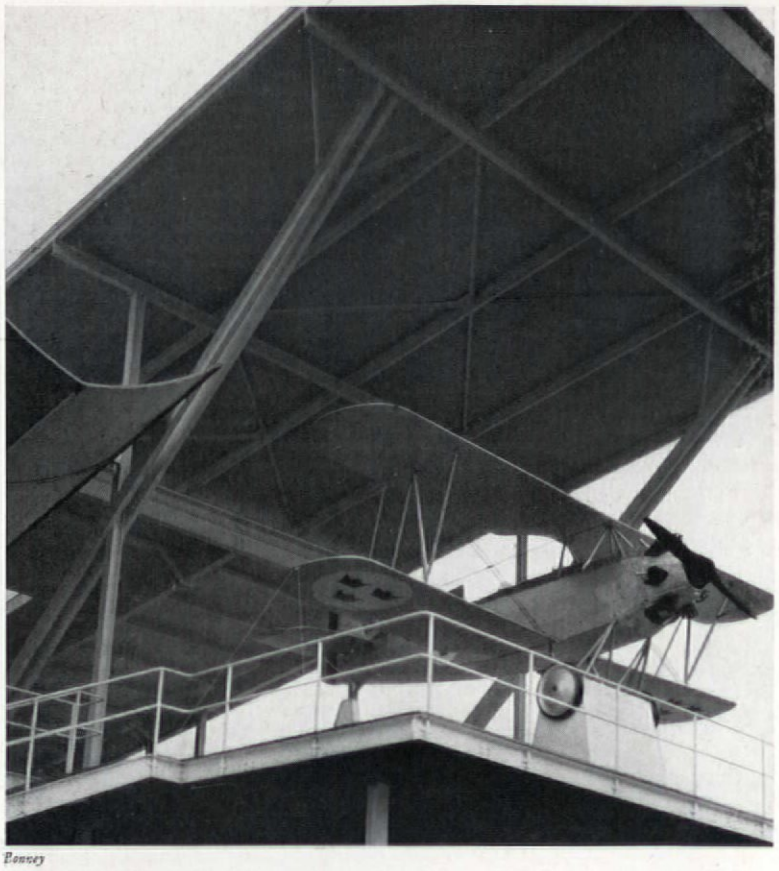
The following is an extract taken from a recent publication of the United States Department of Agriculture entitled "Termites in Buildings," Leaflet No. 31:

"Proper construction when building is essential and the following suggestions will assist in preventing damage and loss from termite activities in frame construction.



Courtesy the Patent Scaffolding Co., New York

. . . easy assembly of ready-made and easily handled units.



Bonney



Bonney

Maximum result with a minimum of means. The economic principles of airplane construction should be applied to the week-end house. Rational utilization of light, strong materials.

STOCKHOLM EXPOSITION 1930

"Wood or fiber products, when an approved preservative has not been forced into the product, shall not be placed in the earth or within 18 inches thereof, excepting wood columns or posts over a concrete floor, which columns shall be provided with noncorroding metal or concrete base plates or footings 6 inches above the floor. This applies to steps, which shall be laid over a concrete base, projecting at least 6 inches beyond the supports of the steps.

"Timber to be used in contact with the earth shall be thoroughly impregnated by a standard pressure process with coal-tar creosote or other equivalent preservative. Timber should be completely cut to proper dimensions before treatment, whenever possible, but when cutting after treatment is unavoidable all cut surfaces shall be thoroughly coated with coal-tar, creosote or other equivalent preservative.

"Masonry foundations and footings shall be laid in Portland-cement mortar. Foundations built up of masonry units, whether hollow or solid, shall be capped below woodwork with at least 1 inch of Portland-cement mortar, or mortar and slate, or solid or joined noncorroding metal, or other equally artificial seal.

"In the case of frame buildings a metal termite shield shall be provided, continuing completely around the top of the masonry foundation, including all pillars, supports, and piping, below the woodwork of the building, on both the inside and outside surfaces. Such a shield may be formed of a strip of noncorroding metal (such as copper, zinc, or an alloy composed of 28 per cent of copper, 67 per cent of nickel, and 5 per cent of iron, manganese, and silicon), firmly inserted in the surface of the masonry, or between the foundation and the wood, with the projecting edge bent downward at an angle of 45° and extending horizontally at least 2 inches from the face of the foundation. In masonry buildings this shield can be inset in the masonry at a height at least 18 inches above the ground.

"Floor sleepers or joists embedded in masonry or concrete, or laid on concrete which is in contact with the earth, shall be impregnated with an approved preservative.

"Expansion joists between concrete floor and wall shall be filled with liquid asphaltum and the right-angle joint covered with a sanitary cement mortar or Portland cement concrete finish of an arc of at least 2 inches in length.

"The ends of wooden beams or girders entering masonry or concrete shall not be sealed in, but shall be provided with boxes affording an air space at the end of the piece of not less than 1 inch at side of member, unless the ends of such timbers are impregnated with coal-tar creosote or other approved preservative.

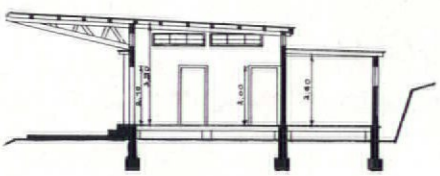
"Where there are spaces under floors near the earth they shall be excavated so that there will be no earth within 18 inches of the wood, and they shall be provided with cross-ventilation. Such ventilating openings shall be proportioned on the basis of 2 square feet for each 25 lineal feet of exterior wall, except that such openings need not be placed in front of such building. Each opening shall be provided with 20-mesh non-corroding metal screening, including windows and attics.

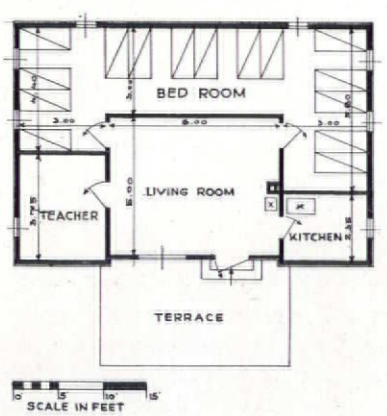
"Where timber is used in roofs of the flat type, the roof shall, unless protected on the weather side with a waterproof covering, have a slope and run-off sufficient to provide proper drainage.

"All wooden forms on foundations shall be removed from masonry work within 15 days; grading stakes shall be removed before laying concrete floors."







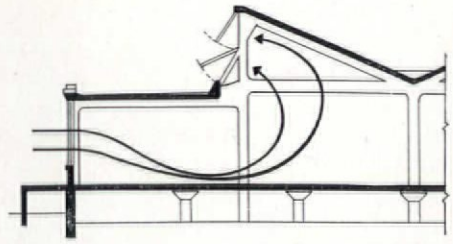


Week-end camp in the mountains.

KARL MEINHARDT, Architect

CONTROL OF TEMPERATURE AND VENTILATION

Control of temperature and proper ventilation should be insured with the simplest possible means. All materials used for roof, walls and partitions should have high insulating properties. Awnings, flaps and flies can be used as protection against sun and rain. The structure should be located on the site in such a way that the prevailing breezes can be utilized. Flaps and movable canvas screens can be used to catch the wind and lead it through the house. The design should insure natural cross-ventilation by utilization of the inevitable air currents.



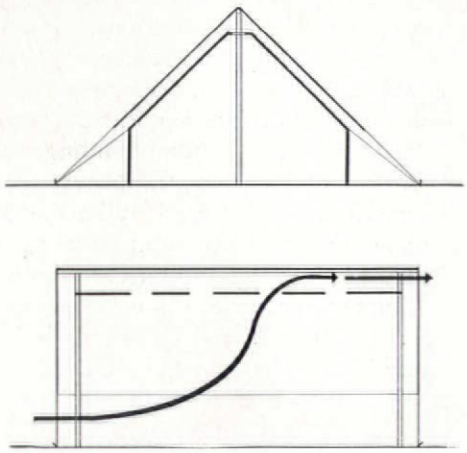
Natural ventilation of industrial plant.

PROTECTION AGAINST INSECTS

The structure should be thoroughly screened. It is good practice to have a screened space within the kitchen for the storage of imperishable food. Screens should have at least 16 meshes to the inch to keep mosquitoes out.

EQUIPMENT

A minimum of equipment should be used. It should be easily transported and stored away, light and collapsible, and able to withstand hard use. For sleeping accommodations there should be cots or bunks usable for seats in the daytime, or wall beds or roll-away beds that can be placed in wall closets. Portable bath tubs, camp stoves, heating stoves, ice-boxes, camp chairs and tables will serve the specific purpose. Lighting equipment will depend on the local conditions.



Natural ventilation of tent. Note the insulating space between tent and fly.

WATER SUPPLY

An adequate pure water supply is one of the most important requirements of the week-end house. An average of about 50 gallons per person per day is necessary for drinking and sanitary purposes if flush toilets, showers, and bath tubs are used. Less water is necessary if latrines are used. Showers require about 20 gallons of water per person per day, bath tubs about 10 gallons per person per day, flush toilets about 10 gallons per person per day, and for drinking and culinary purposes about 5 gallons per person per day.

The water supply may be obtained from three sources: rain water, ground water, and surface water. The method of supply will depend on the local conditions.

It is important to ascertain whether the water is safe for use. An analysis should be made each year before the season if the water supply is not chemically treated. It is possible to install a simple type of hydro-chlorinating system at low cost.

SEWAGE DISPOSAL

The local conditions of topography, geology, soil texture, location with reference to water supply, volume of sewage and other factors determine in each case the method of disposal and the location and size of disposal plant. The first requirement for a sewage disposal plant is a location where it cannot be a source of contamination to the water supply. This means that it should be, if possible, located entirely outside the catchment area which furnishes the source of surface or ground water supply, due consideration being given to the fact that a well or spring supply may receive its water from an area partly outside the limits of the superficial watershed. If the point of disposal must be upon this catchment area the disposal



Galloway

Revolving bath house with provision for sunbath.

plant should, as far as practicable, be located at as great a distance as possible from the source of the water supply, away from the lines of possible drainage toward such sources and at an elevation below the water level of this source. If the week-end house is furnished with a general water supply system and plumbing fixtures such as sinks, washbasins, and flush toilets a considerable amount of sewage will be created and the choice of location and method will involve additional factors, not only of a sanitary nature such as the protection of bathing beaches, use of a stream in which the sewage may be discharged and the possibility of creating a nuisance, but also a physical nature, such as the topography and the character of the soil.

The topography will affect such questions as whether the sewage will flow by gravity or must be pumped, what size and grades the sewers shall have, what possible site for sewage disposal is available to collect the sewage economically, and what type and proportions of structures are suited to the required degree of treatment of the sewage. The character of the soil will affect primarily the method of the disposal works, that is, whether by cesspool, subsurface irrigation field, sand filters, or otherwise.

If the week-end house is not provided with a general water supply system the amount of waste water from washing and cooking can be disposed of in a small cesspool roughly constructed of loose stone or timber and covered tightly to prevent fly and mosquito propagation. Wash water should not be thrown on the ground because the soap and suspended organic matter in it in time will become a breeding place for flies.

Where a general water supply system is not available the human excreta can be disposed of either by a dug privy, a removable container, or a chemical toilet. These toilets should be removed from the main structure taking into consideration prevailing winds and privacy. They should be amply ventilated, light, and easily cleaned, screened with metal wire or mosquito netting.

REFUSE DISPOSAL

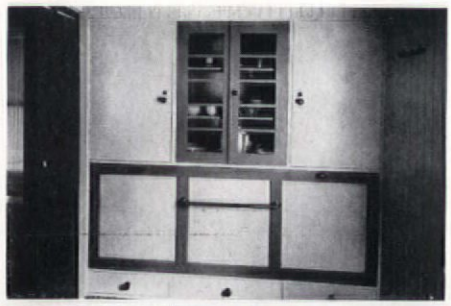
Most rubbish can be disposed of by burning. Incombustible rubbish should be buried. Garbage should be stored in such a way that odors are not produced and so that flies and vermin are not allowed to have access to the material. The garbage can should be located near the kitchen, placed on a rack or storage platform that will permit the ground in the immediate vicinity to be covered with lime to prevent spilled garbage from decomposing and attracting flies. The garbage cans should be constructed of substantial material and fitted with tight covers. Garbage should be disposed of by burning or burying. Economical small-size incinerators may be made of "salamanders." The incinerators should not be located near the house.

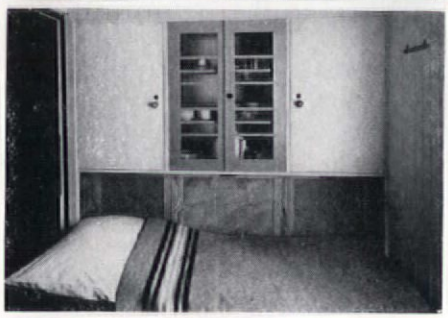
COLOR

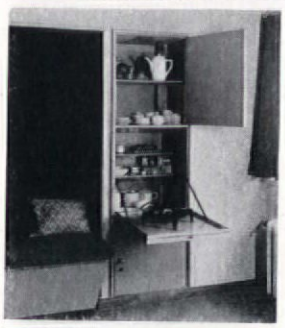
Pigment color should be reduced to a minimum on account of the cost of maintenance.

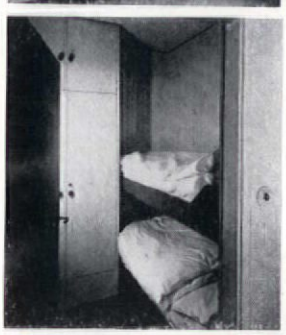
The colors should be organized:

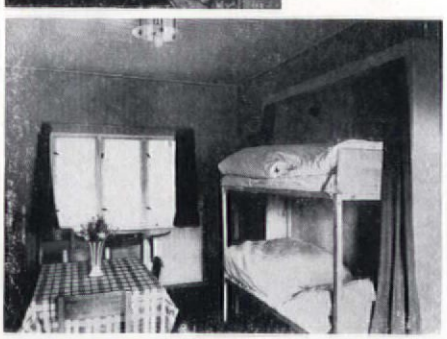
1. *To increase the cheerfulness, comfort and the appeal of the structure* (counterpoint to the gray drabness of the city). Use of warm and cool colors in relation to the sunlight. Light and heat reflecting surfaces.
2. *To increase the ease and safety of operation.* Primary colors are easily recognized. Doors, stairs, equipment, etc., should be clearly indicated in space.











Interior views of the week-end house shown on page 187. Note the use of wall bed.

ERNST PIETRUSKY, Architect

3. *To increase the ease of maintenance and cleaning and to facilitate the clean appearance of the structure.* Enclosed spaces should have colors that will make the presence of dirt easily detected. Exterior parts that are unavoidably soiled should be dark.
4. *To increase the visual unity.* The number of colors should be limited to a minimum.

PLASTIC UNITY WITH SURROUNDINGS

Primary forms and colors are right in any surroundings. The plastic unity of the structure with the natural setting is determined by the clear statement of the specific problem and by the solution of this problem with rational human tools.

Any attempt to conceal the nature of the structure as a human creation through a superficial imitation of "natural" forms (fake log cabins), or a *sentimental*—and often expensive—use of local materials and building forms is as misplaced as the *intrusion* on nature by representative forms. The week-end house is no intrusion. It is the setting for a life in friendly contact with nature. A structure that is determined by unselfish human relations to sun, soil and surroundings, and by the use of human industrial methods is a natural circumstance, as native as the nests of birds and insects, the bridge, the highway and the sailboat.

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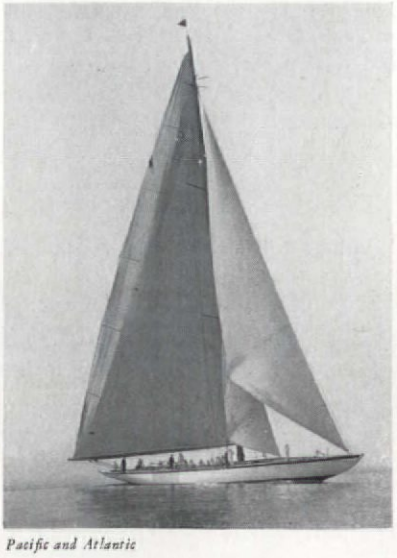
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KENDALL, C. F.

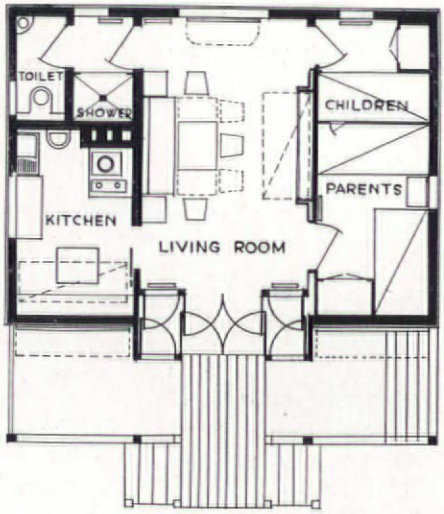
Camp sanitation. In American Journal of Public Health, July, 1925, pp. 583–9. Published by American Public Health Association, 370 Seventh Ave., New York. Price 50 cents.

The Kentucky Sanitary Privy. Published by the State Board of Health of Kentucky, Louisville, Kentucky.



Pacific and Atlantic



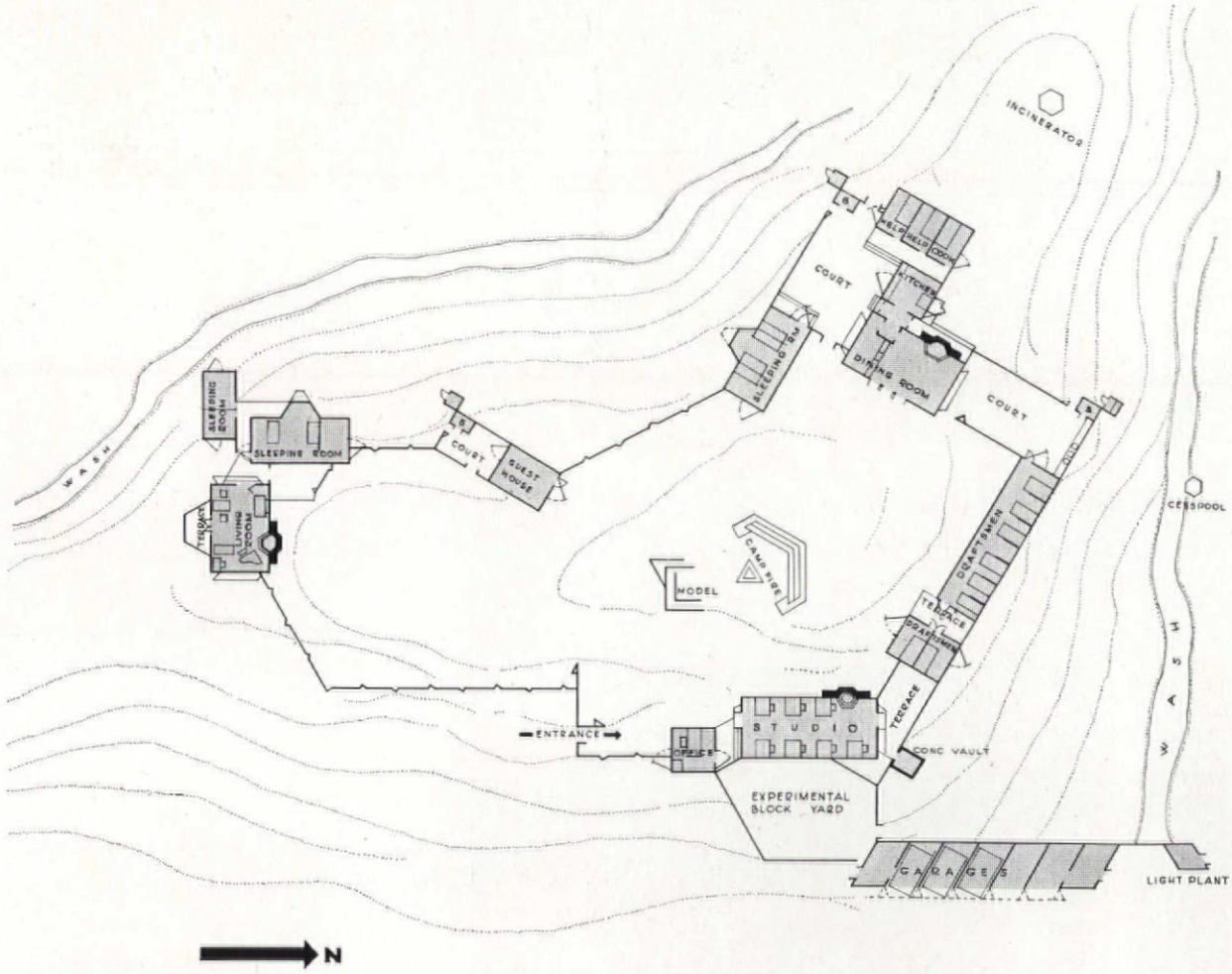




WEEK-END HOUSES IN SILESIA
ERNST PIETRUSKY, Architect

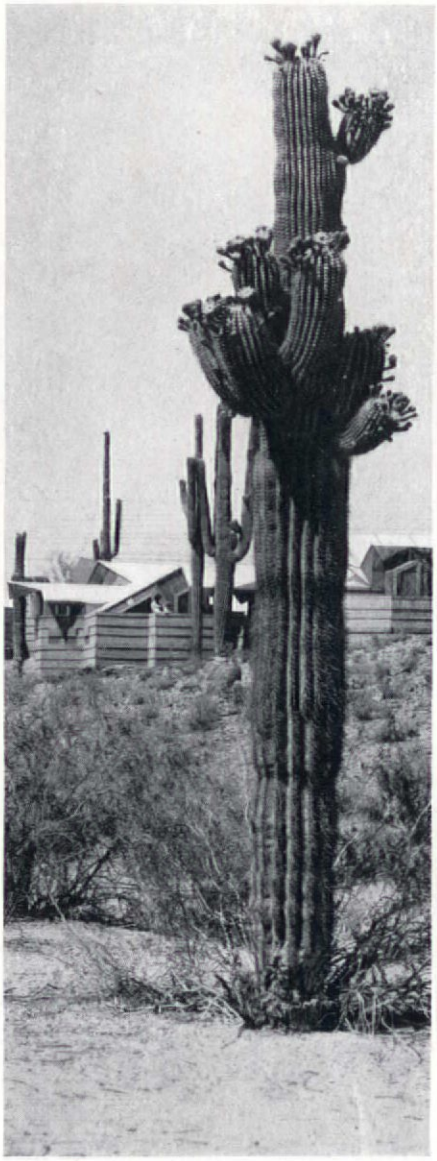
The group is built by a government association and furnished with household utensils. The lower hall in the administration building serves as meeting hall for social purposes. Gas, water, electricity. Brick foundations. Wooden framework with bricks. The weather sides, exterior corkslabs lined with planks. Colored roofing felt. Bright colors: vermilion, caput mortum; windows painted white, doors green.





"OCATILLA" DESERT CAMP FOR FRANK LLOYD WRIGHT, ARIZONA

DESERT CAMP FOR FRANK LLOYD WRIGHT
ARIZONA
FRANK LLOYD WRIGHT, ARCHITECT



PURPOSE

Dwelling, office, and drafting room for the architect during the preparation of plans for a desert development.

LAYOUT

Dwelling, guest house, office, drafting room, bunk-shelters for the draftsmen, dining room, kitchen, cook's shelter, and shelter for cars are grouped together about a low outcropping of rock that rises between, giving privacy to all. Each group has its own bath and privy. The buildings are connected with a low box-board wall inclosing the stony hill-crown as a court.

CONSTRUCTION

Box-boards 11½" wide, battens 1¾ x ⅞", 10 oz. canvas 4'–0" wide put together with nails, screws, hinges, and ship cord on 4'–0" units. The canvas awning-windows and doors may be shut against the dust or may be open to deflect the desert breeze in to the interiors. Cross ventilation is everywhere at the floor-levels to be used in the heat of the day. The long side of the canvas slopes lies to the sun to aid in warming the interiors in the winter. This is to have an additional cover of canvas, ventilation between, in summer, if occupied then. The translucent canvas tops afford generous diffusion of light within.

EQUIPMENT

Air tight sheet-iron stoves in each shelter keep the inside warm in winter after sundown. Lighting by a KOHLER plant.

COLOR

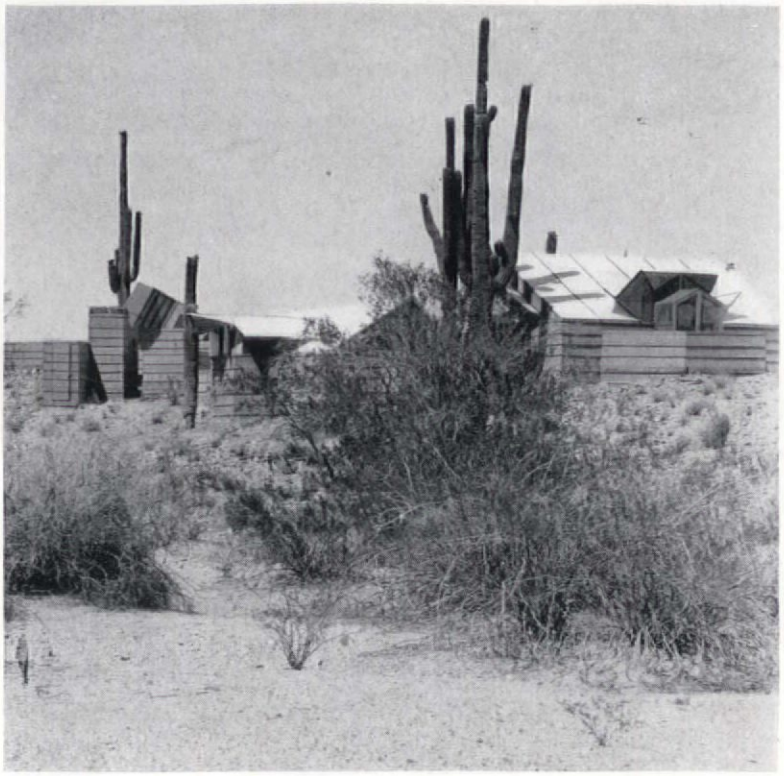
The box-boards are painted dry-rose. The canvas triangles of the gables are scarlet. The canvas is white.

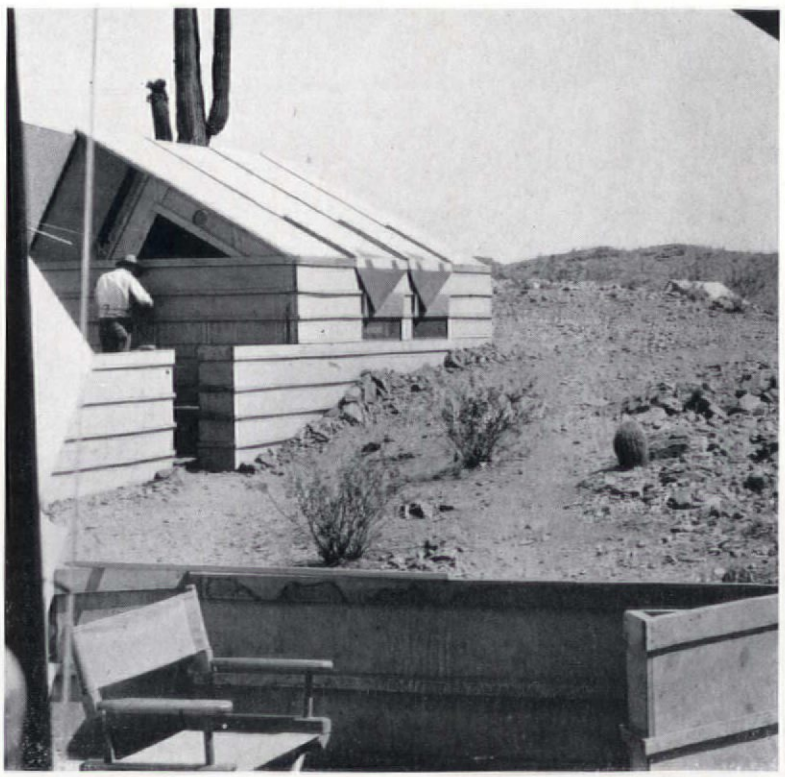




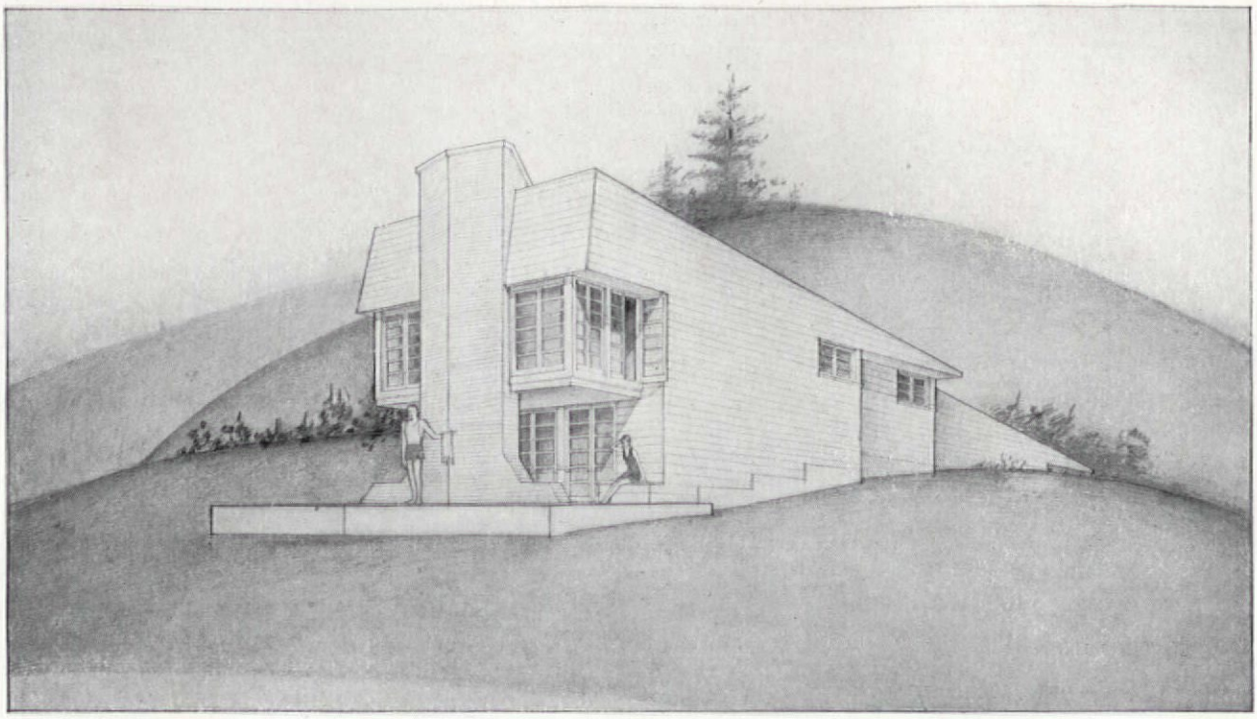
DESERT CAMP, ARIZONA

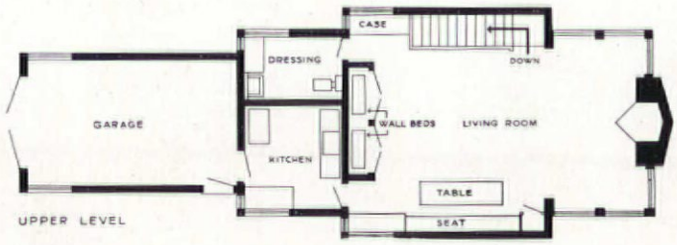
FRANK LLOYD WRIGHT,
Architect

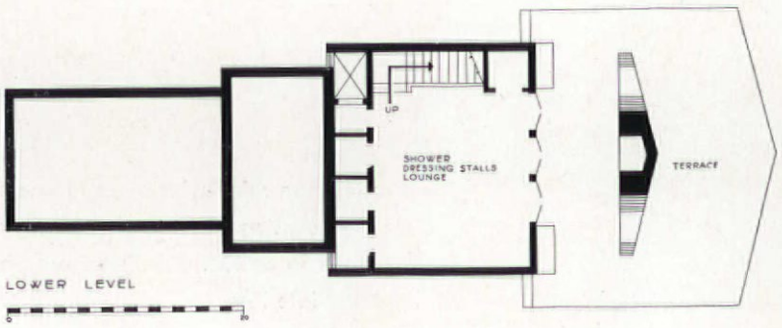




The canvas awning-windows and doors may be shut against the dust or may be open to deflect the desert breeze into the interiors.

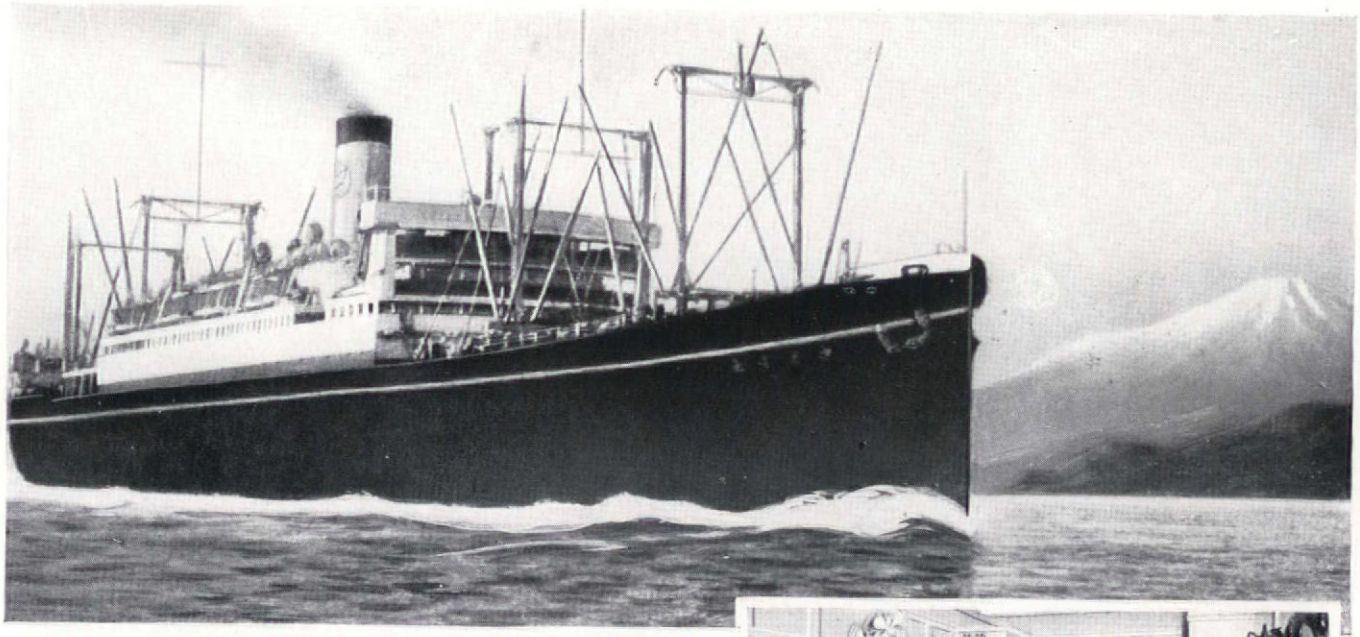


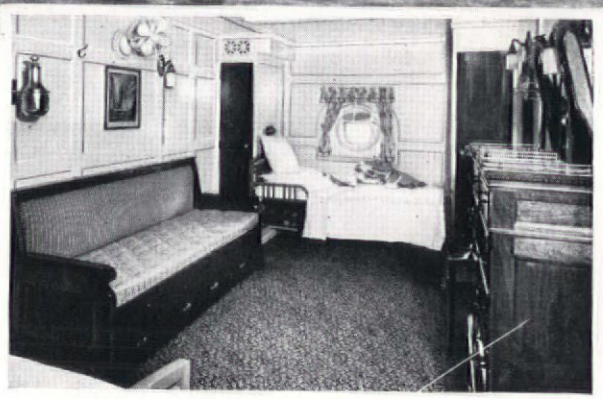




BARRY BYRNE, ARCHITECT
DESIGN FOR OWN DUNE COTTAGE
LONG BEACH, INDIANA

Exterior: Wide bevel siding, sawnface, over studs sheathed with celotex. Studs exposed on interior. Wood surfaces stained light sand color. Sash orange red. Brick light orange red.





S.S. "President McKinley" of the American Mail fleet. At right: Luxurious stateroom aboard a President liner, typical of the handsome Barreled-Sunlight-painted interiors on all American Mail vessels.

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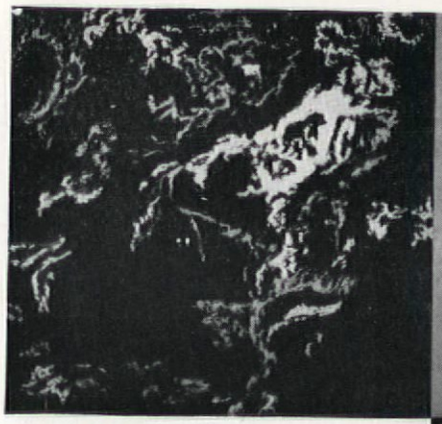
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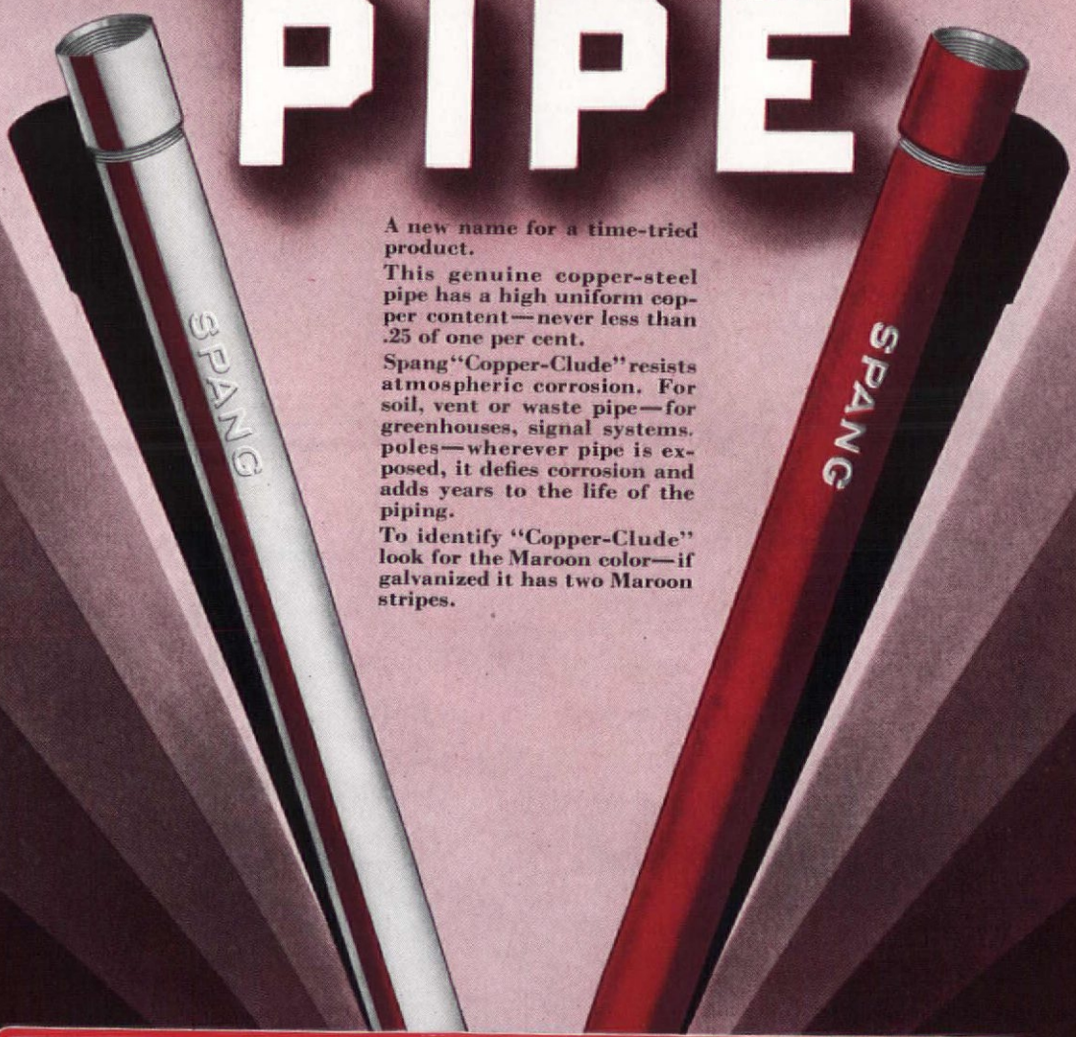
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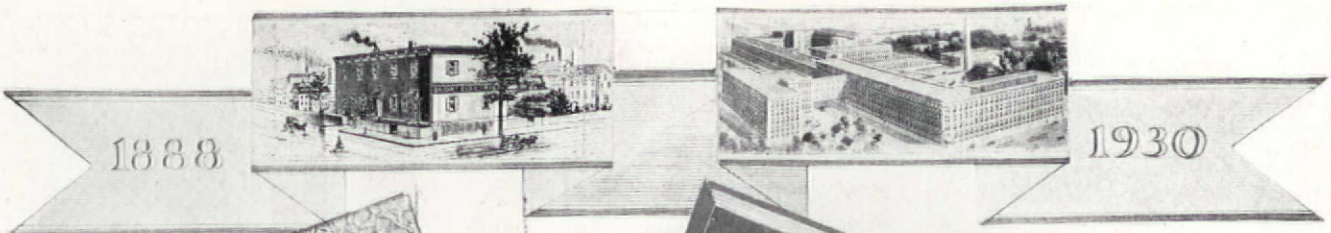
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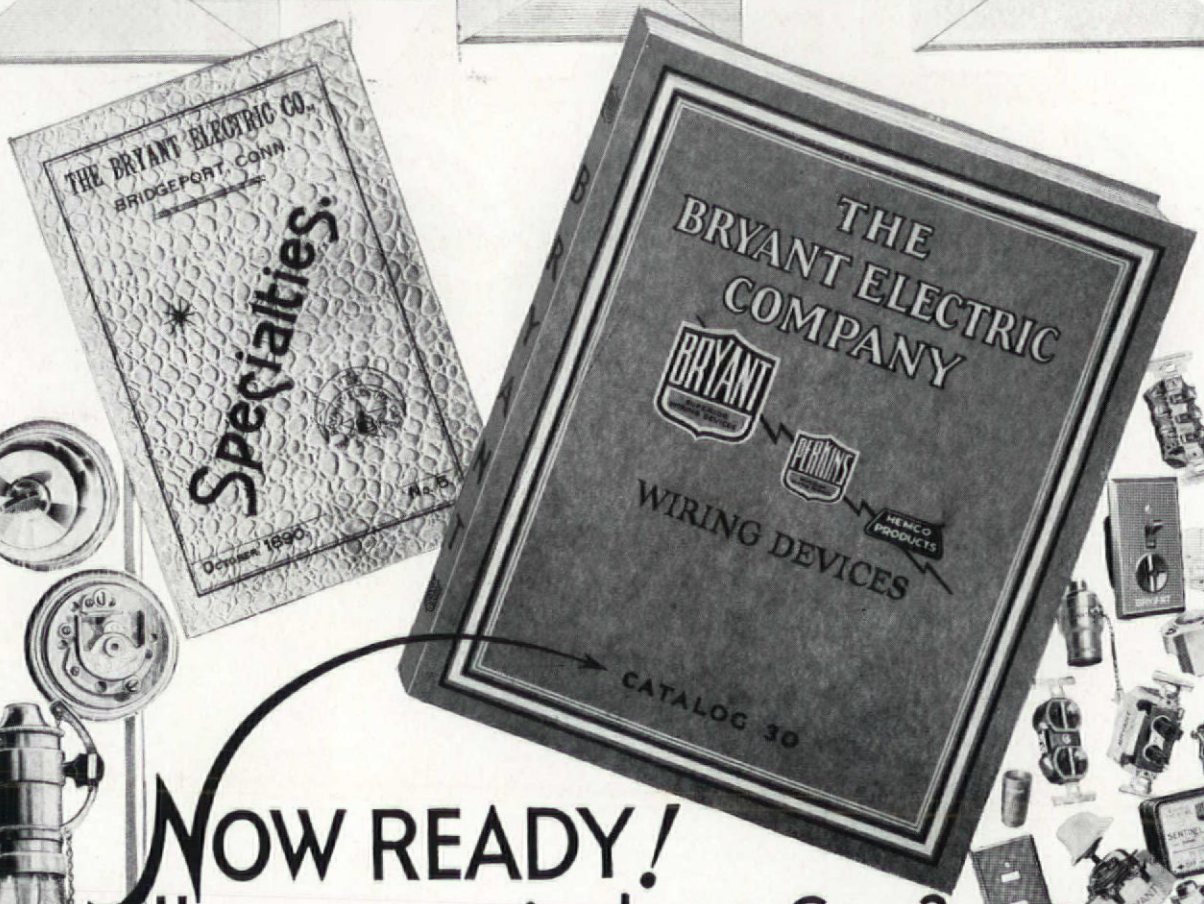
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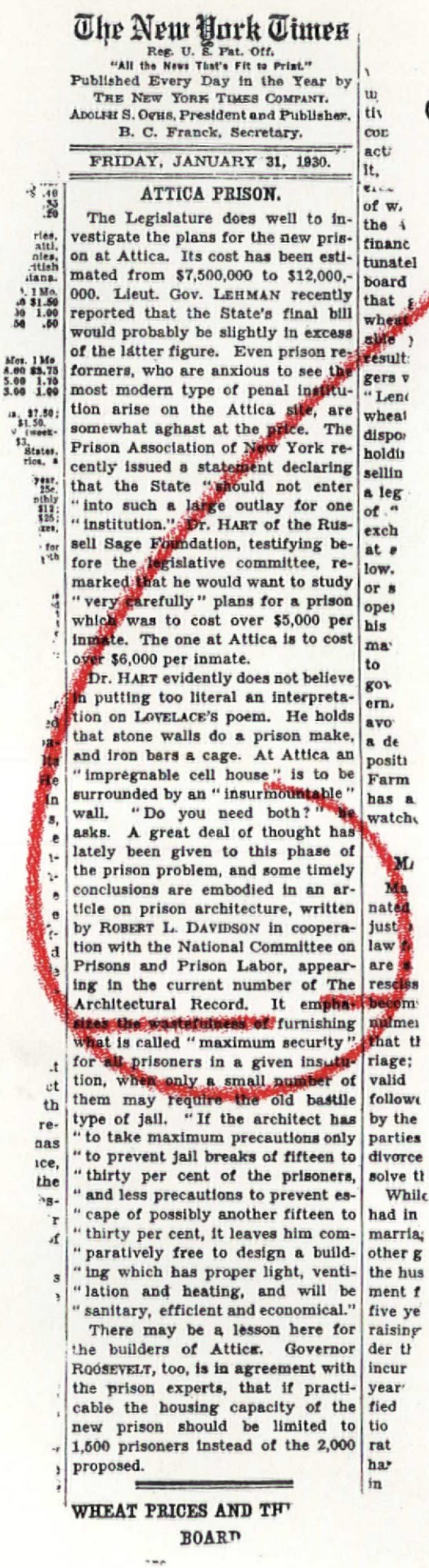
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FRIDAY, JANUARY 31, 1930.

ATTICA PRISON.

The Legislature does well to investigate the plans for the new prison at Attica. Its cost has been estimated from $7,500,000 to $12,000,000. Lieut. Gov. LEHMAN recently reported that the State's final bill would probably be slightly in excess of the latter figure. Even prison reformers, who are anxious to see the most modern type of penal institution arise on the Attica site, are somewhat aghast at the price. The Prison Association of New York recently issued a statement declaring that the State "should not enter "into such a large outlay for one "institution." Dr. HART of the Russell Sage Foundation, testifying before the legislative committee, remarked that he would want to study "very carefully" plans for a prison which was to cost over $5,000 per inmate. The one at Attica is to cost over $6,000 per inmate.

Dr. HART evidently does not believe in putting too literal an interpretation on LOVELACE'S poem. He holds that stone walls do a prison make, and iron bars a cage. At Attica an "impregnable cell house" is to be surrounded by an "insurmountable" wall. "Do you need both?" he asks. A great deal of thought has lately been given to this phase of the prison problem, and some timely conclusions are embodied in an article on prison architecture, written by ROBERT L. DAVIDSON in cooperation with the National Committee on Prisons and Prison Labor, appearing in the current number of The Architectural Record. It emphasizes the wastefulness of furnishing what is called "maximum security" for all prisoners in a given institution, when only a small number of them may require the old bastile type of jail. "If the architect has "to take maximum precautions only "to prevent jail breaks of fifteen to "thirty per cent of the prisoners, "and less precautions to prevent es"cape of possibly another fifteen to "thirty per cent, it leaves him com"paratively free to design a build"ing which has proper light, venti"lation and heating, and will be "sanitary, efficient and economical."

There may be a lesson here for the builders of Attica. Governor ROOSEVELT, too, is in agreement with the prison experts, that if practicable the housing capacity of the new prison should be limited to 1,500 prisoners instead of the 2,000 proposed.

WHEAT PRICES AND TH
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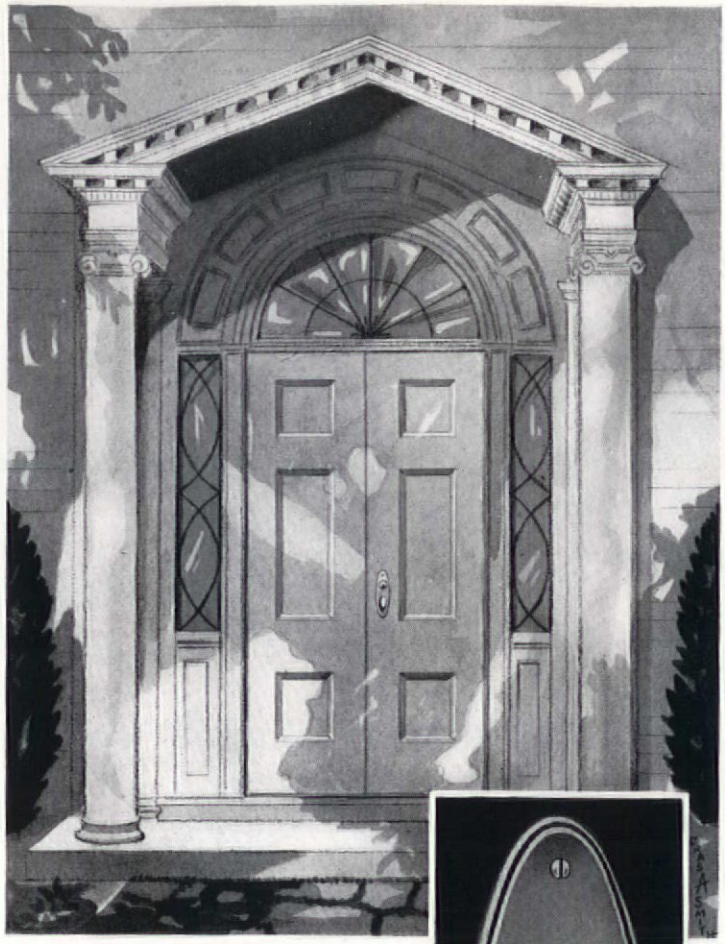
Professional standing in the case of a highly specialized architectural journal—the keen, sustained reader interest that assures study of every current issue and an eagerness to receive forthcoming numbers—depend in no small measure on the ability of the editorial staff to anticipate developments and trends in plan, design and use of materials, to crystallize and interpret the almost intangible, and to lead and direct architectural thought from the viewpoint of practical, every-day application in the readers' business. The service of The Architectural Record in this respect has been outstanding for a third of a century—a condition reflected in its new high record of 7,944 architect and engineer subscribers.

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(*Left*) HADRIAN
(*Right*) WARWICK

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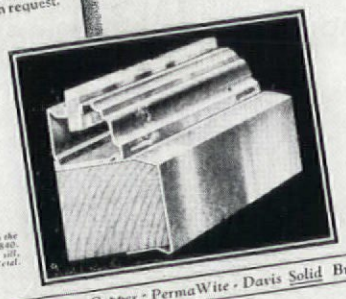
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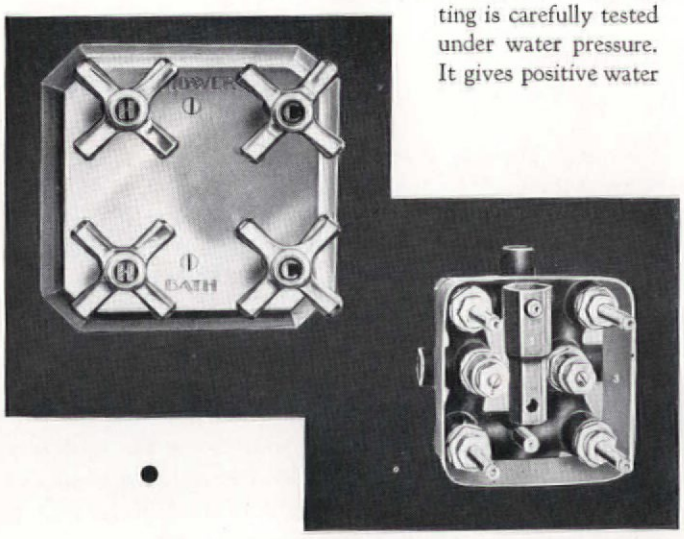
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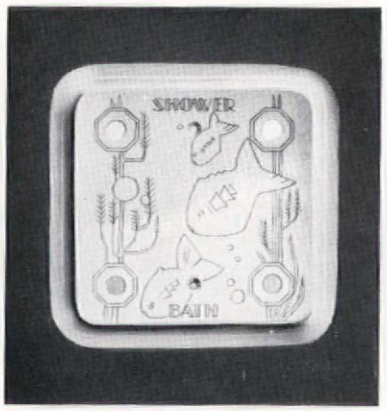
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(At outer left) The removable outer panel, which is of metal, chromium plated, can be furnished plain or especially etched with an appropriate design.

(At left) The one-piece yoke exposed, showing (1) socket wrench furnished with fitting; (2) integral stops; (3) tile guide.

(At right) A coat of arms, a trade-mark, a seal, or some other distinctive emblem will be etched to order. Several interesting stock designs are available.



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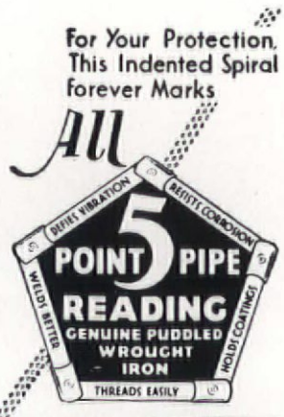
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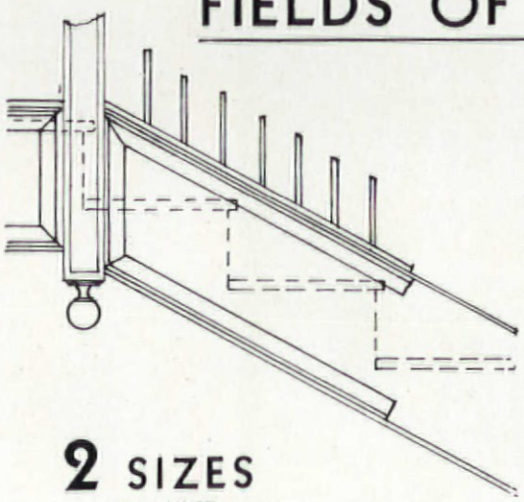
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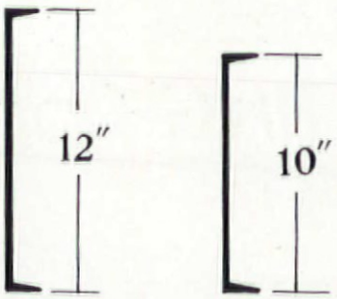
THE new J & L 12" Light Weight Steel Channel embodies all the savings in weight and time required for fabrication and installation which have made the 10" section so popular in stair construction, and extends the field in which those advantages may be applied.

J&L LIGHT-WEIGHT CHANNELS

1 HEAVIER LOADS

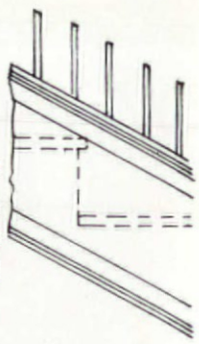
In stairs for which exceptional allowance must be made for heavy loads, the new J & L 12" section provides unusual strength with about half the weight of the lightest 12" standard section.

2 SIZES AND 3 WEIGHTS



2 WIDER TREADS

In schools, churches and other buildings where the traffic is heavy and a wide tread is required, the J & L 12" Light Weight Channel provides an ideal section, economical to use and adapted readily to any type of decorative treatment.



Section Index	Depth of Channel, Inches	Wt. per Foot, Lbs.	Flange Width: Inches and Decimal Parts	Flange Width: Inches and Fractional Parts	Web Thickn's: Decimal Parts of an Inch	Web Thickn's: Fractional Parts of an Inch
C-750	10	8.8	1.523	1 23/64	0.187	3/16
C-751	10	8.0	1.5	1 1/2	0.164	11/64
C-700	12	10.6	1.5	1 1/2	0.190	3/16

J&L STEEL

In addition to stair construction, the properties of both 10" and 12" sections suggest the development of other important uses. Write for full engineering data and other information.

JONES & LAUGHLIN STEEL CORPORATION

American Iron and Steel Works

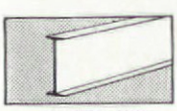
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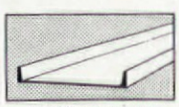
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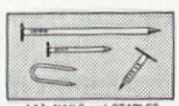
Canadian Representatives: JONES & LAUGHLIN STEEL PRODUCTS COMPANY, Pittsburgh, Pa., U. S. A., and Toronto, Ont.

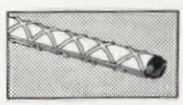

J&L JUNIOR BEAMS



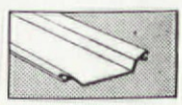
J&L STEEL PIPE

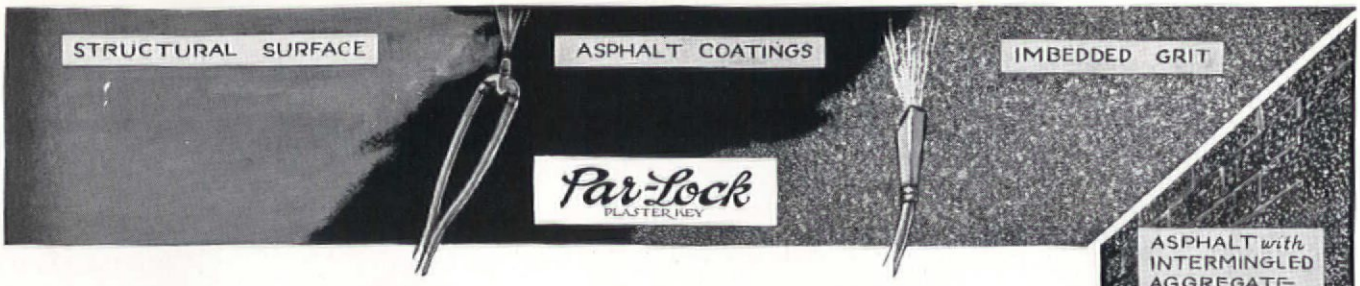

J&L LIGHT CHANNELS

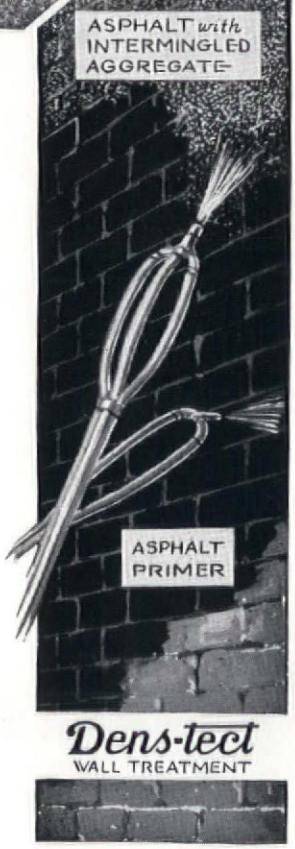

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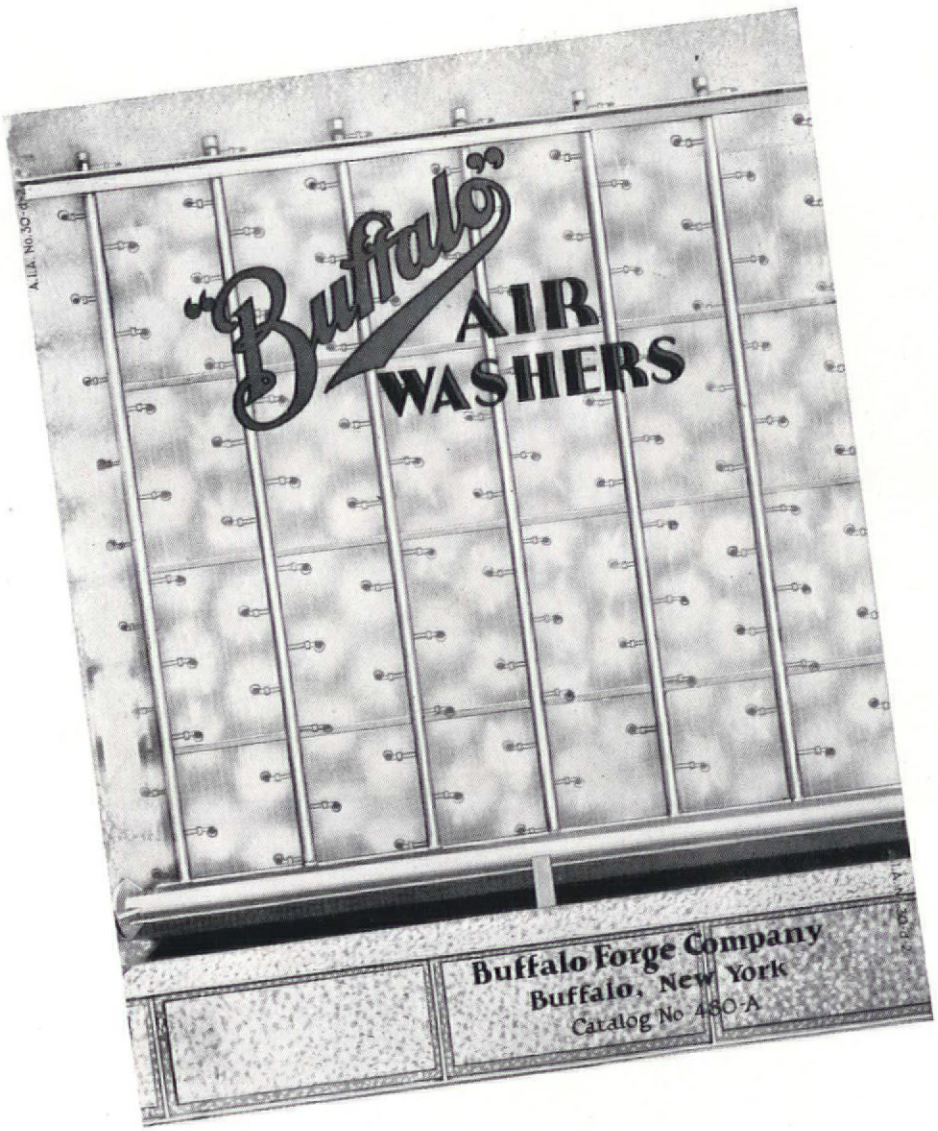
The Old-time Minstrel

UNDERNEATH the elaborate camouflage of Mr. Bones—the burnt cork, the idiotic collar, the striped coat and checkerboard vest—is probably quite a good-looking fellow. Yet—to leap from the ridiculous to the sublime—why should good architectural design ever be clothed—as it sometimes is—in the grotesque apparel of inappropriate material? Architects who appreciate this fact and who design in the modern style with vast wall expanses and sweeping vertical lines, are not using stone which is uneven in tint and tone—they specify one whose warm, creamy lightness is absolutely uniform. The greatest recommendation of Victor Select and Standard Buff Limestone is its uniform, creamy tone—there are no checkerboard variations in tint and color to camouflage structural lines and offsets, kill carving detail and reduce the effectiveness of modern architectural design. Furthermore, the supply of Victor Buff Limestone is virtually unlimited—an important point where the building of today will tomorrow be surrounded by others that must necessarily be in harmony with it.

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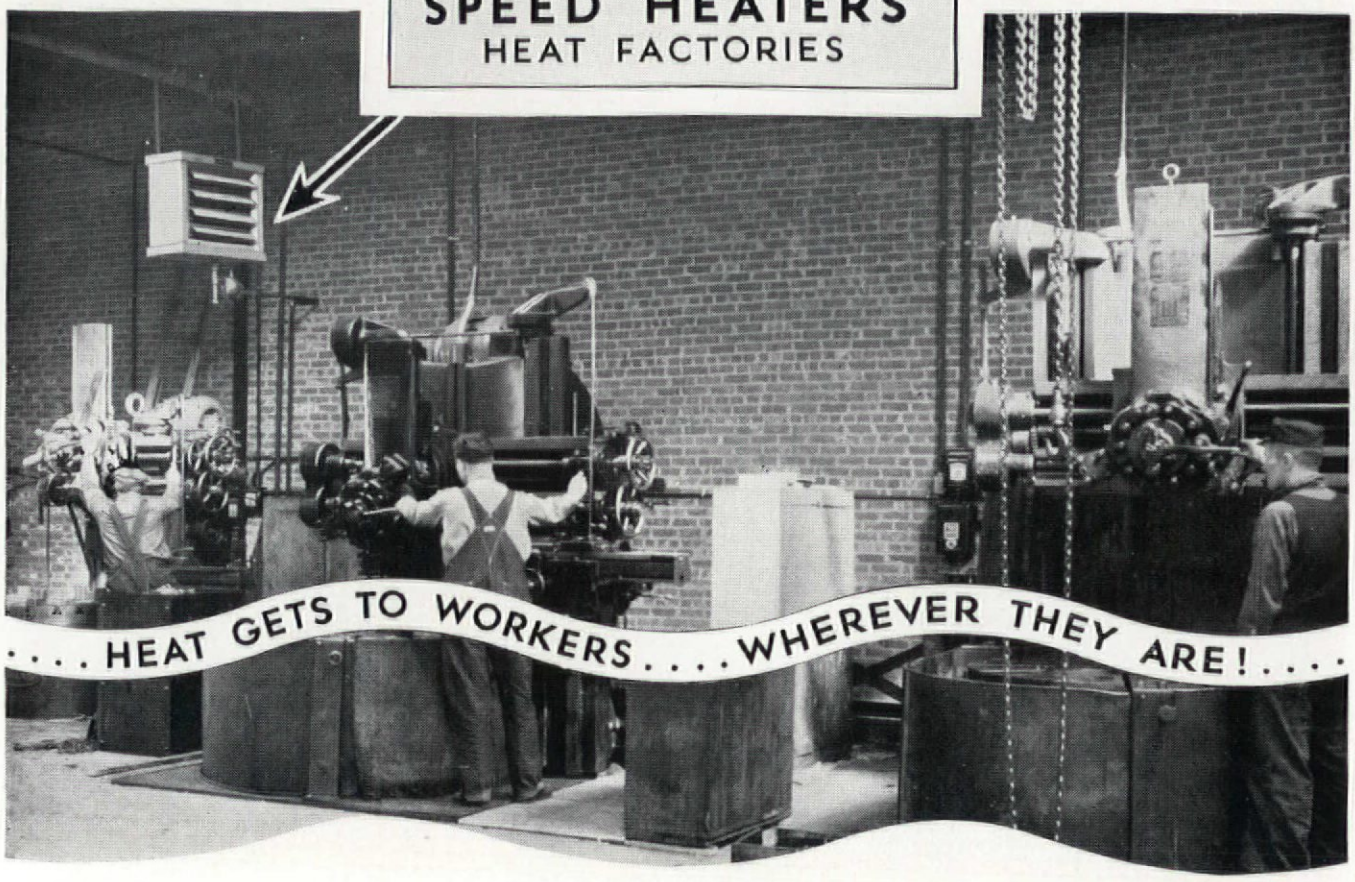
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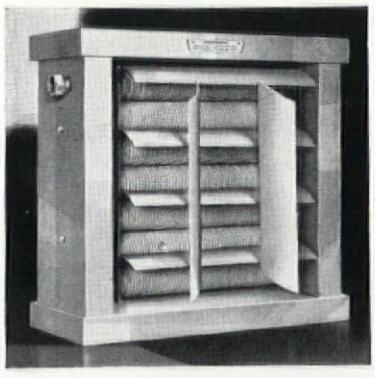


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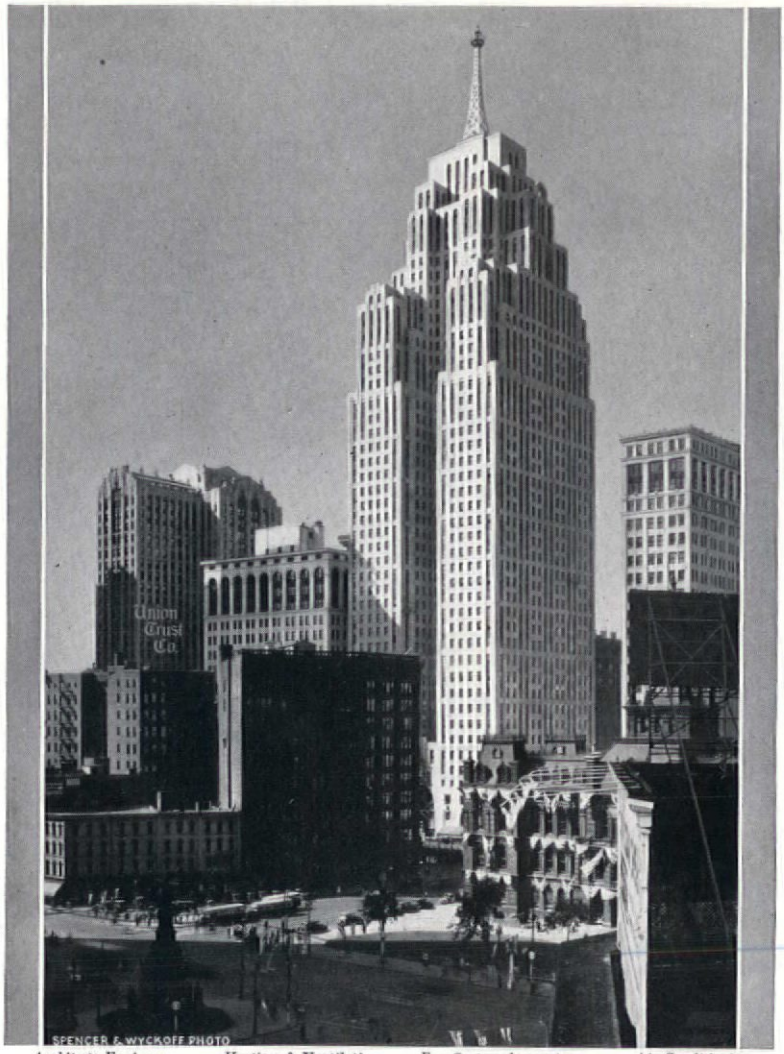
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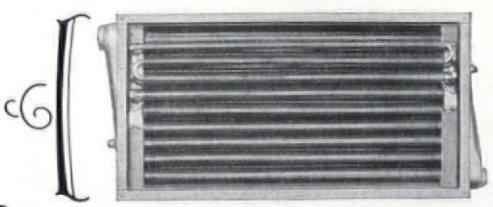
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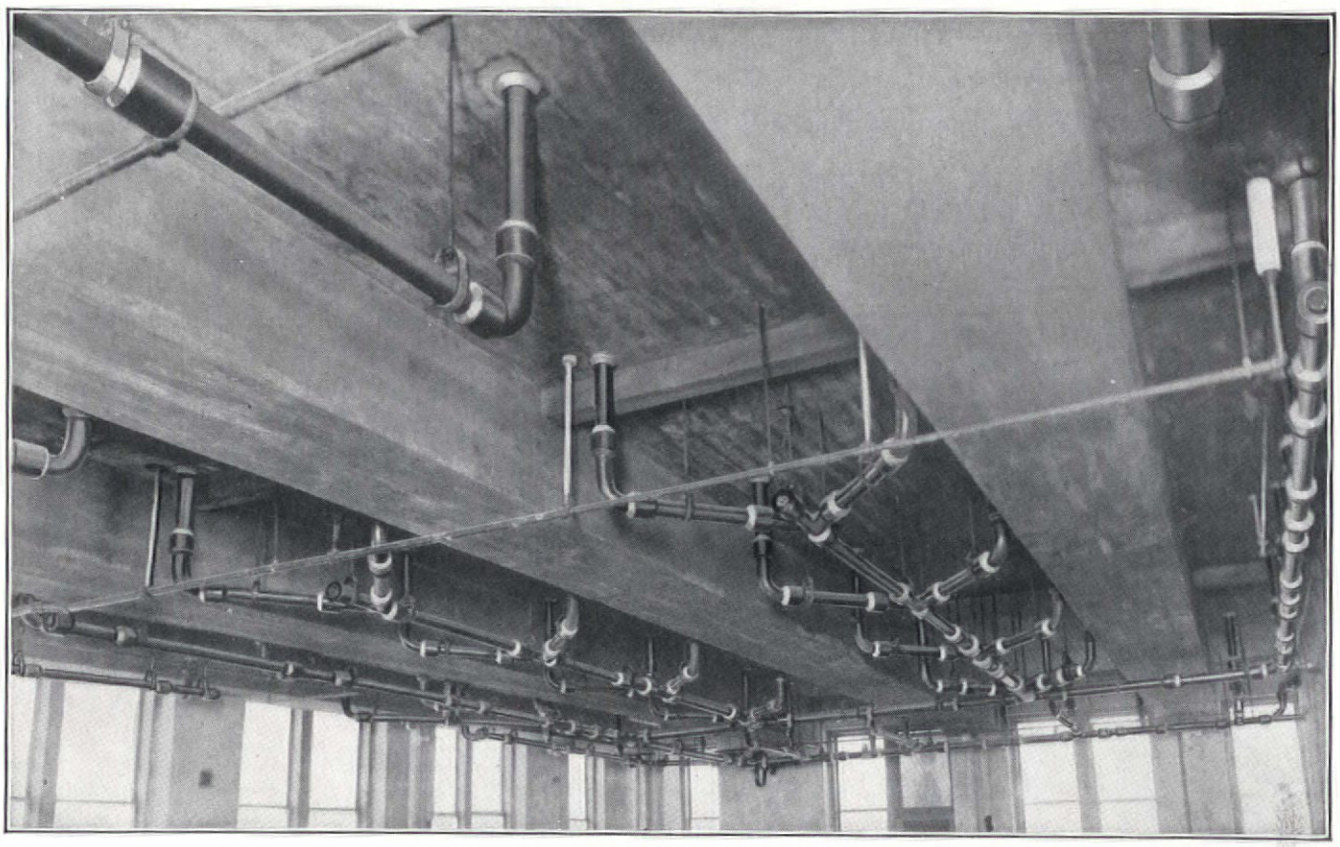
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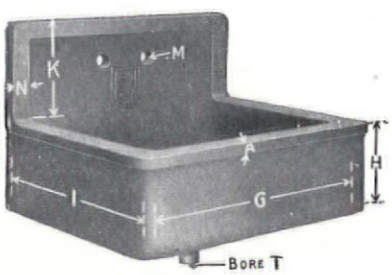


Figure 235
Acid Proof Laboratory Sink with Back

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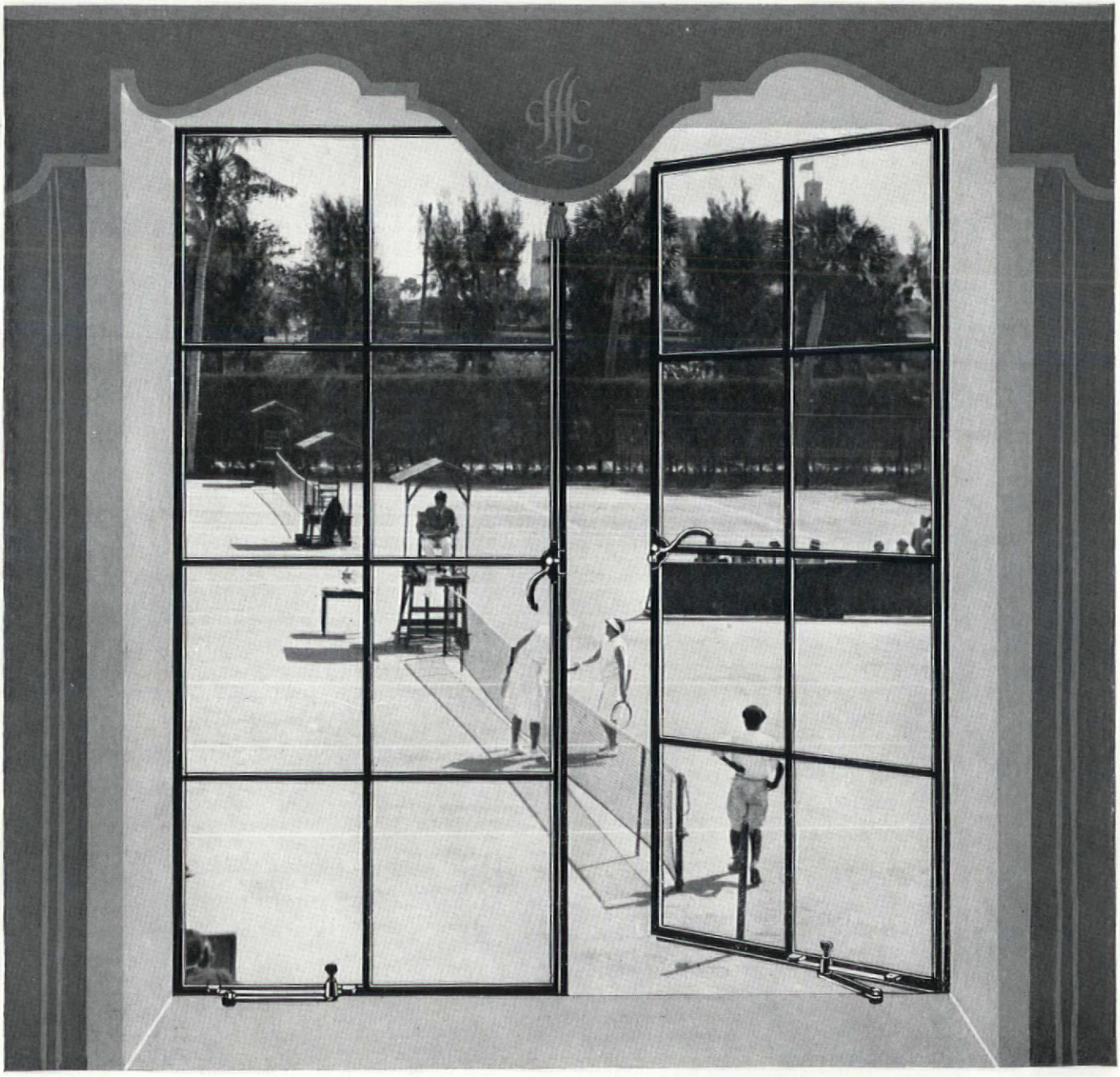
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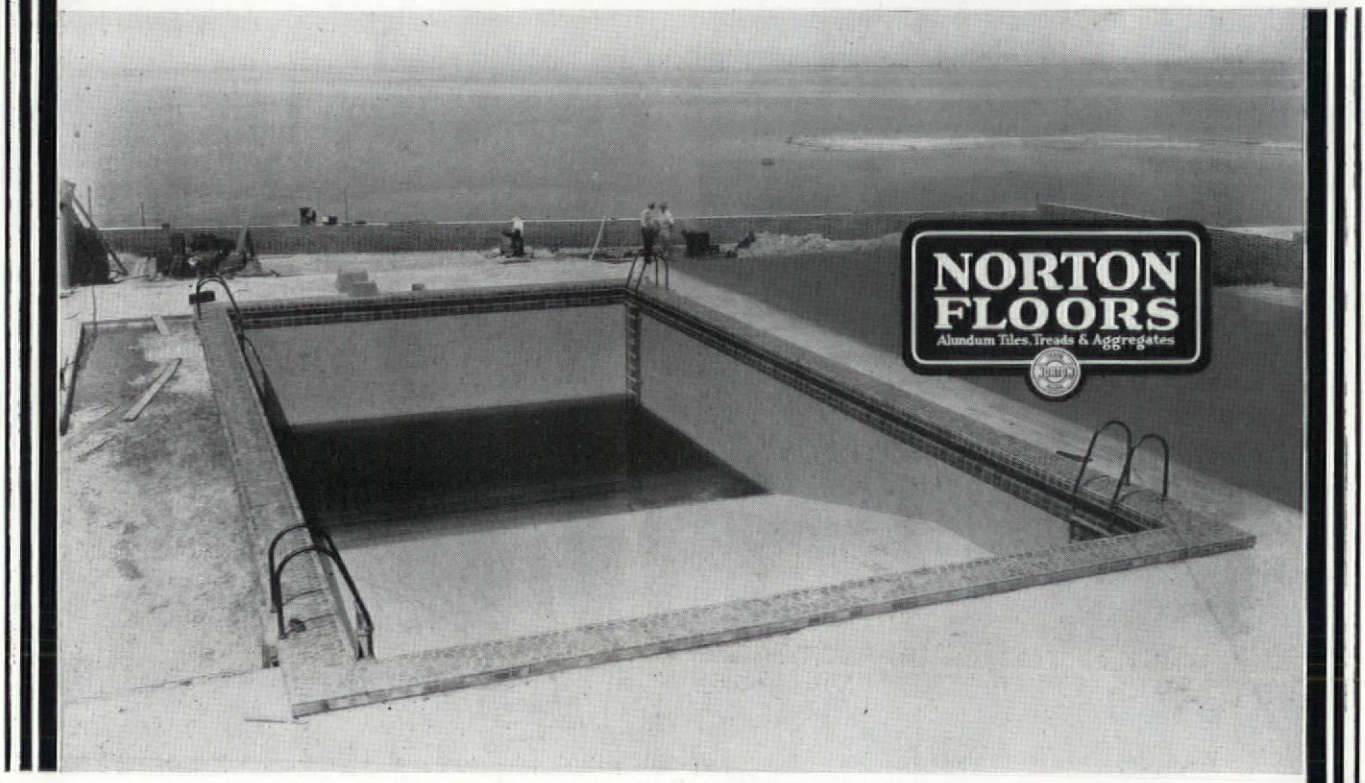
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WALDORF-ASTORIA
New York City

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General Contractor: Thompson-Starrett Co.
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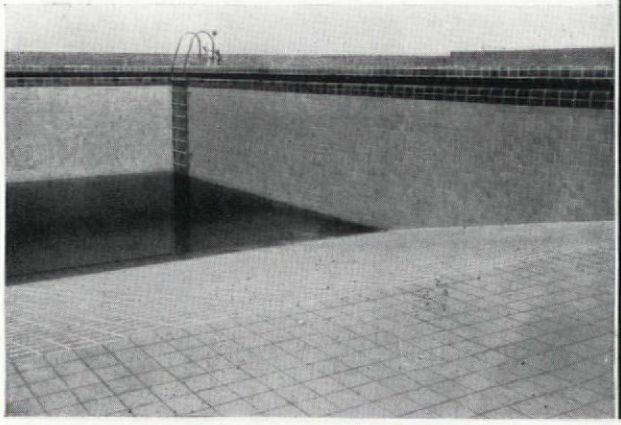
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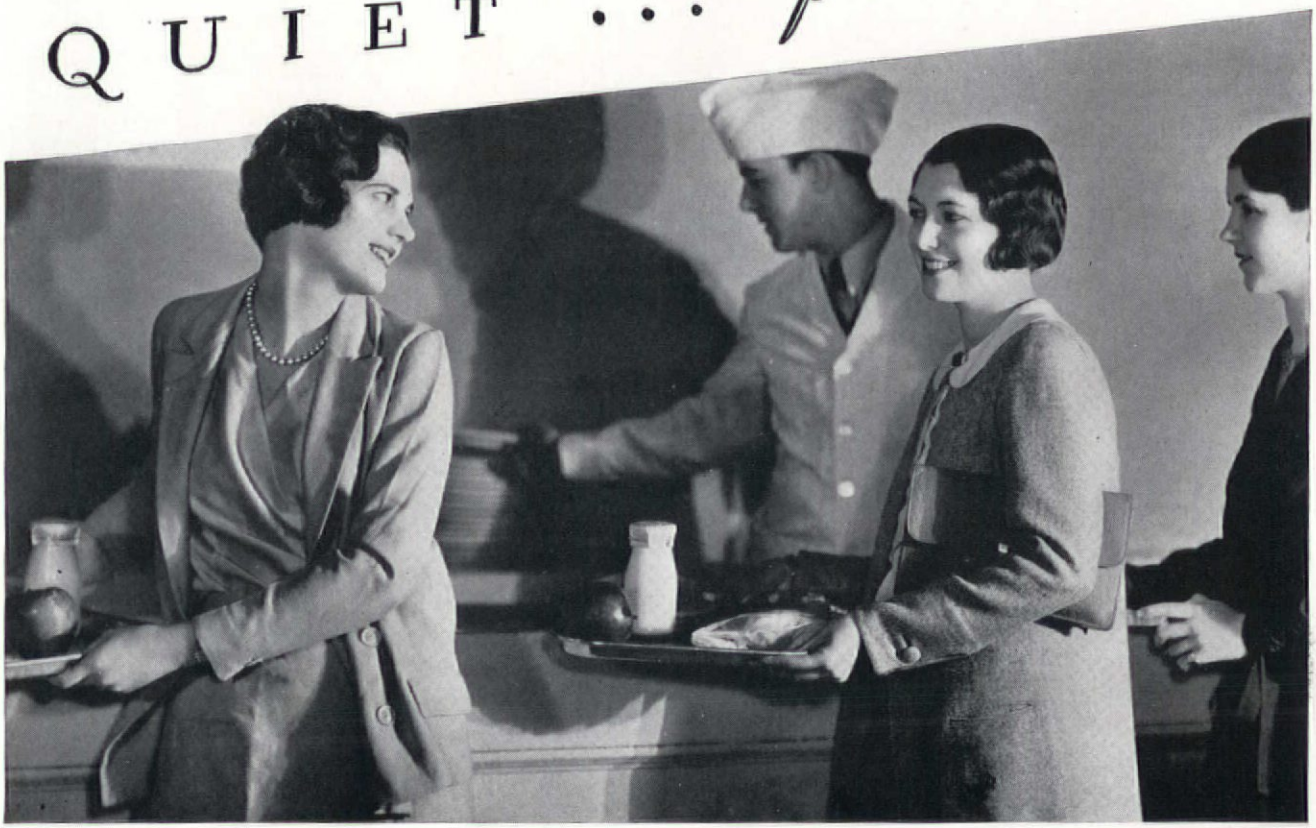
Roebling Swimming Pool, Clearwater, Florida
Architect: R. W. Wakeling, Clearwater
Tile Contractor: Stewart-Mellon Marble & Tile Co., Tampa, Florida

T-263

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QUIET ... *please* ...



MODERN schools need acoustical treatment to deaden the sound of voices and clattering dishes in cafeterias, and to make classrooms, gymnasiums, corridors, and auditoriums more comfortable, more efficient.

Acoustex does its work well. It is sanitary, can be cleaned, and is easily repainted with a spray gun without appreciable impairment of acoustical qualities. And best of all, Acoustex never wearies the eye. From an aesthetic standpoint Acoustex is a finish complete and beautiful in itself.

BOSTON ACOUSTICAL ENGINEERING DIVISION
of HOUSING COMPANY
40 CENTRAL STREET, BOSTON, MASS.

Acoustex erectors are located in principal cities . . . Ask for specifications and details on the use and application of Acoustex . . . or write us direct.

ACOUSTEX

The *Decorative* Sound Absorbent

ACOUSTEX offers you . . .

An acoustic material which is a finish beautiful in itself . . . tinted to your specifications . . . unusually high coefficient of sound absorption . . . easily vacuum cleaned and redecorated . . . made of incombustible wood fibre . . . tested through years of successful installations . . . furnished in tiles from 6″ x 12″ to 12″ x 24″ and large sheets two feet wide and up to ten feet in length . . . three thicknesses available to meet all absorption requirements:



ACOUSTEX 60—1 inch thick
*Absorbs more than 60% of the incident sound

ACOUSTEX 70—1½ inches thick
*Absorbs more than 70% of the incident sound

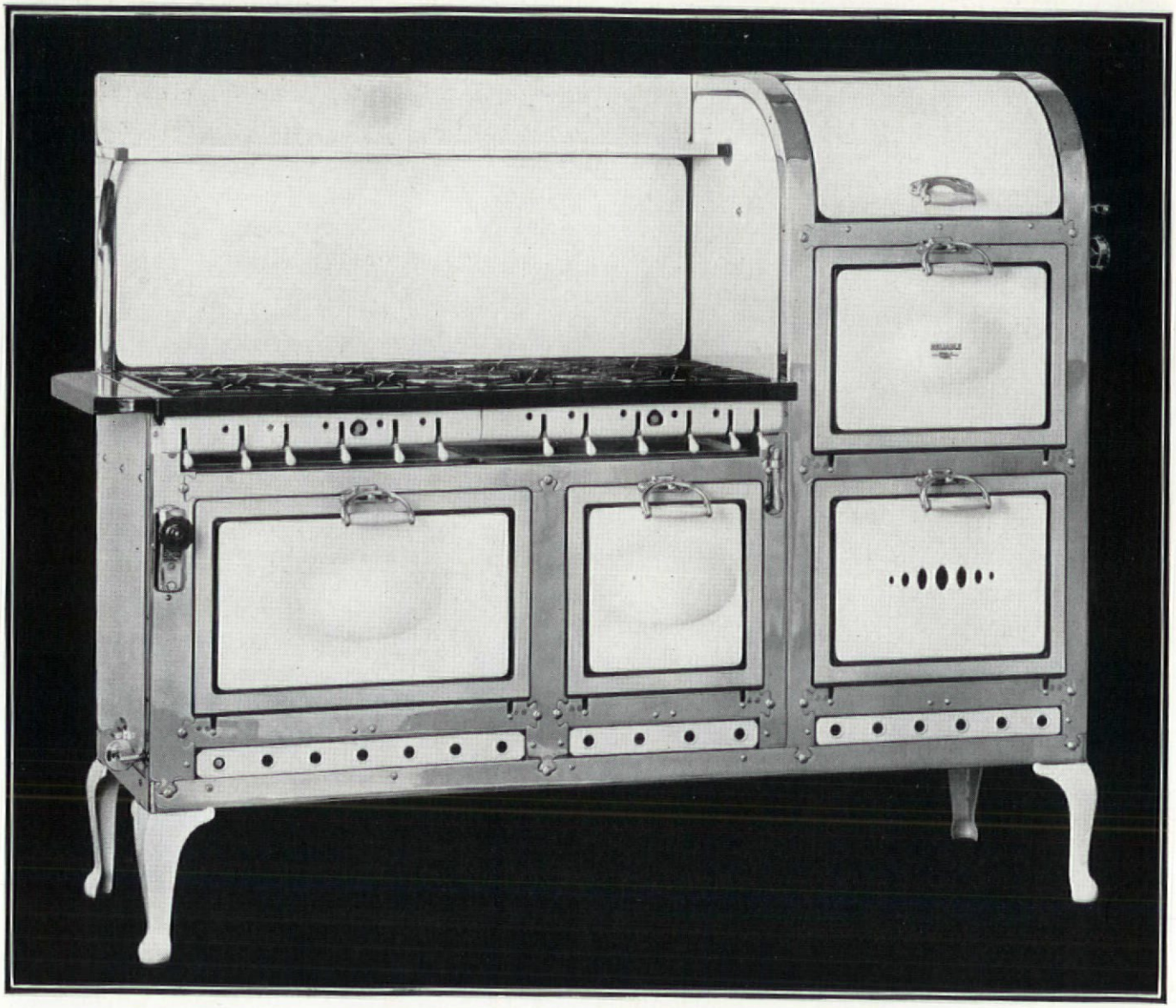
ACOUSTEX 80—2 inches thick
*Absorbs more than 80% of the incident sound

*1024 vibrations per second.

Boston Acoustical Engineering Division of Housing Company, 40 Central St., Boston, Mass. R-8
Please send Specifications and Details on the Use and Application of Acoustex for our acoustic file.

Name.....

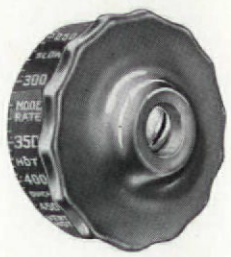
Address.....



Something New . . . Reliable Gas Ranges now built to individual specifications for finest residential and apartment homes. ◙ ◙ These famous stoves have rigid framework of unbreakable Angliron, finished in durable, sparkling chromium that will not stain or tarnish. Hand-fitted construction by master craftsmen. Neither time nor service can injure the brilliant beauty of these magnificent gas ranges. ◙ ◙ Special designs of Reliable Custom-Built Gas Ranges will be created to meet any space- or service-requirements. Blueprints submitted for approval. Many installations now giving exceptional satisfaction. Correspondence invited from those who seek individuality, permanent beauty and a complete and faultless cooking service.

Write for catalog "Custom-Built Gas Ranges"

AMERICAN STOVE COMPANY · DEPT. B, 555 CHOUTEAU AVENUE, ST. LOUIS, MO.
Largest Makers of Gas Ranges in the World

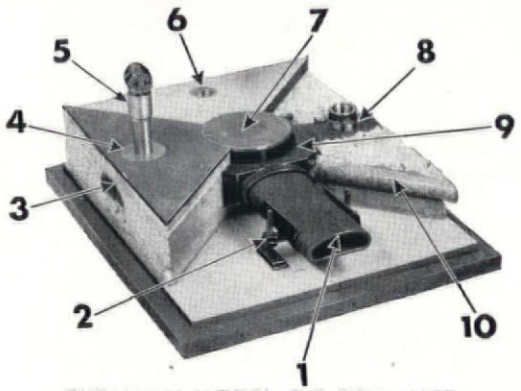


It Is a GOOD Gas Range That Has This Red Wheel

G-E FIBERDUCT



For Today's Wiring *and* TOMORROW'S



CUTAWAY MODEL G-E FIBERDUCT AND FITTINGS

1. G-E Fiberduct.
2. Coupling-support with leveling screws.
3. Oval crown 1 in. below surface molds strong concrete arch.
4. Brass floor flange flush with linoleum.
5. Lighting outlet, brass standpipe, bakelite head.
6. Brass insert; grouted—can't pull out.
7. Adjustable-height cover recessed for linoleum.
8. Brass insert threads into duct.
9. Heavy, one-piece iron junction box with leveling screws.
10. Conduit for feeder lines.

You can plan underfloor wiring today that will be adequate down the years if G-E Fiberduct—the *modern* fiber raceway—goes into concrete floors.

Locate outlets *anywhere* in a G-E Fiberduct system. More can be added *any time* merely by boring into the duct. Abandon old ones with brass plugs.

G-E Fiberduct's flat-oval cross-section gives it maximum wire carrying capacity in least space . . . molds a strong concrete arch over itself.

It is readily installed in single or multiple duct systems. Economical . . . non-corrodible.

You can obtain it promptly, anywhere, from G-E Distributors' stocks. General Electric guarantees it.

For further information, please write Section C-158, Merchandise Dept., General Electric Co., Bridgeport, Conn.

GENERAL ELECTRIC

▲ FIBERDUCT AN ELEMENT OF THE G-E WIRING SYSTEM ▲

MERCHANDISE DEPARTMENT GENERAL ELECTRIC COMPANY BRIDGEPORT, CONNECTICUT

DARKNESS

casts a shadow on the

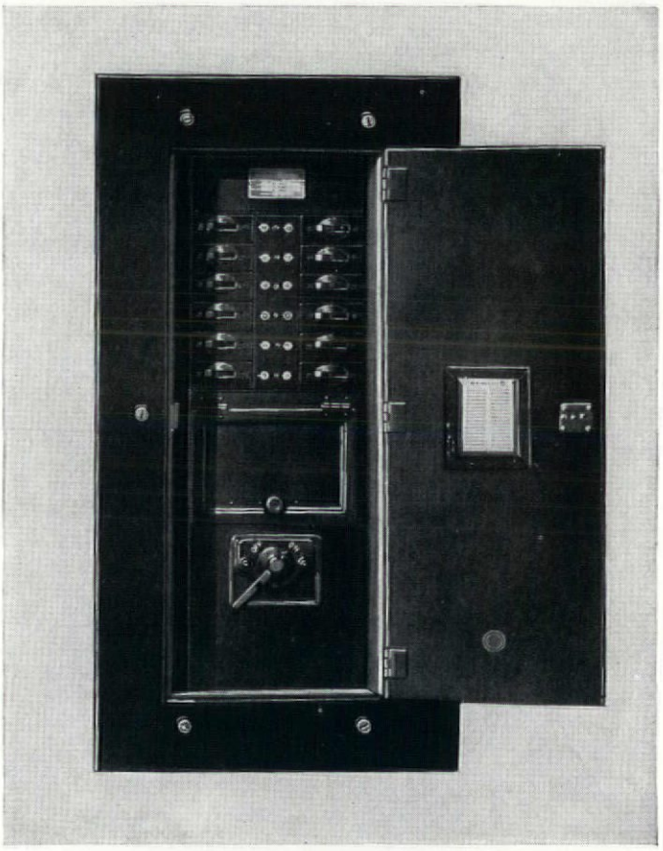
PROFIT SHEET

HUMMING motors . . . busy machines . . . hurrying workers . . . straining to the limit to meet the production schedule. A blown fuse . . . sudden darkness . . . and production stops until an electrician can restore service.

Although these lighting outages cannot be avoided if the wiring is to be protected, they can be reduced to the minimum . . . in duration and in frequency . . . by installing Westinghouse Nofuz panelboards in every class of building.

The nearest worker can restore service by a flip of the breaker handle . . . it is not necessary to await the arrival of an electrician from some important task to replace a blown fuse. Further, the breaker does not open the circuit on momentary overloads . . . but it does protect fully the wiring and equipment at all times. The time saved in the reduction of service outages will lessen the shadow on the profit sheet.

A Westinghouse panelboard specialist will show you a sample Nofuz breaker and explain its advantages upon request.



12 Circuit Nofuz panelboard showing circuit-breakers in the branch circuits.

Service, prompt and efficient, by a coast-to-coast chain of well-equipped shops

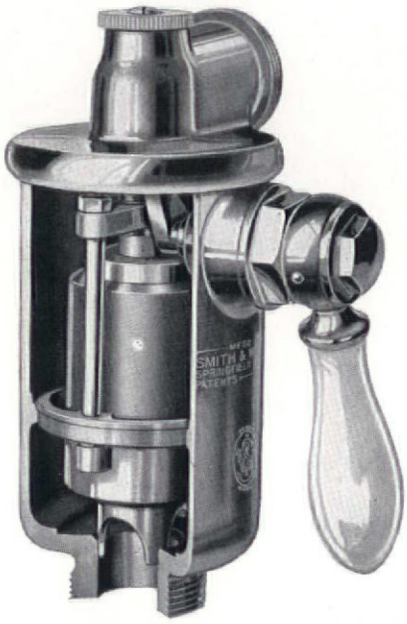
Westinghouse

T 31377

TUNE IN THE WESTINGHOUSE SALUTE OVER THE N. B. C. NATION-WIDE NETWORK EVERY TUESDAY EVENING.

SIMPLIFIED ACTION





A further reason for lasting, *attention-free* service from the SMITH & WESSON Flush Valve

The operation cycle may be readily understood from the illustrations, which show the valve open and closed. The valve is opened by depressing the handle. The volume of water is controlled by the hydraulic governor which also controls the closing of the valve. With *any* adjustment, the valve is fully opened.

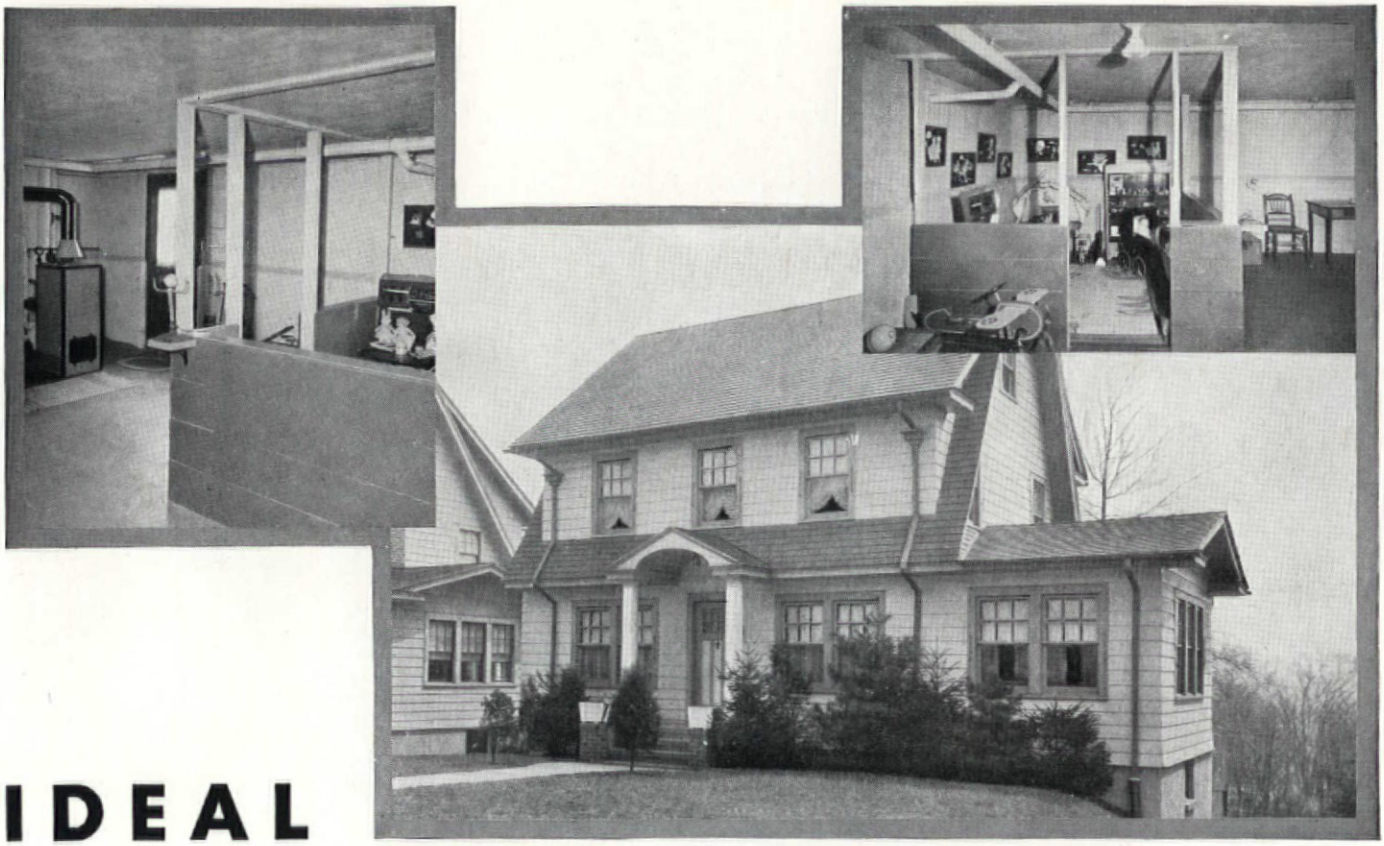
The closing action is aided by gravity and is not dependent on the water flow. In fact, the valve will complete its operation cycle without water, excellent proof of its good design.

For Further Information Write

SMITH & WESSON

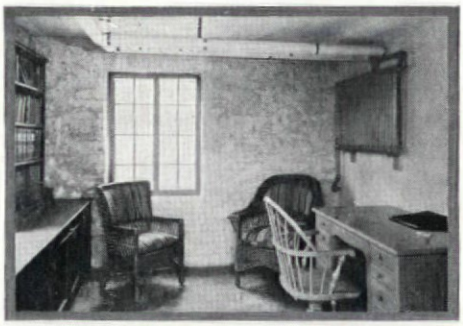
FLUSH VALVE DIVISION

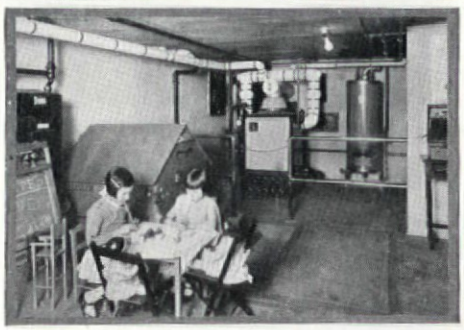
SPRINGFIELD, MASSACHUSETTS



IDEAL GAS BOILERS

give owners basements like these . .





● Homes can be really modernized when Ideal Gas Boilers are installed. The basement can be turned into additional living quarters that are clean and comfortable. The illustrations on this page will give you some idea of how owners are transforming their basements with the help of Ideal Gas Boilers.

● Ideal Gas Boilers burn noiselessly, cleanly, efficiently and automatically. They require no fuel storage or handling. The fuel comes from the same inconspicuous pipe as the fuel for the gas range. They require no ash removal. The fuel is entirely consumed without soot or dirt.

● These features which insure healthful even temperature throughout the house—with luxurious freedom from care—which give livable additional space for den, workshop or playroom, appeal to every home owner who is planning to modernize and to everyone who is planning to build or buy.

● We'll be glad to tell you more about this modern equipment if you will write us.

Manufactured by

AMERICAN RADIATOR COMPANY

Distributed by

AMERICAN GAS PRODUCTS CORPORATION

CHRYSLER BUILDING, NEW YORK

ALUMINUM PAINT— THE COAT OF METAL PROTECTION



THE foundation must be right if a building is to be right. The foundation of a painting job is the priming coat. Top coats can't look right and stay right unless the primer does its work well.

The purpose of the primer on wood is to check rapid change of moisture content. By priming *both* sides of lumber with aluminum paint you minimize moisture change and the possibility of warping and checking. As a result the top paint coats are not stretched and broken. Paint does its work well—it protects, as it should, the fine lines of architectural detail.

FINISH COATS CAN'T STAND UP IF THE PRIMER FALLS DOWN

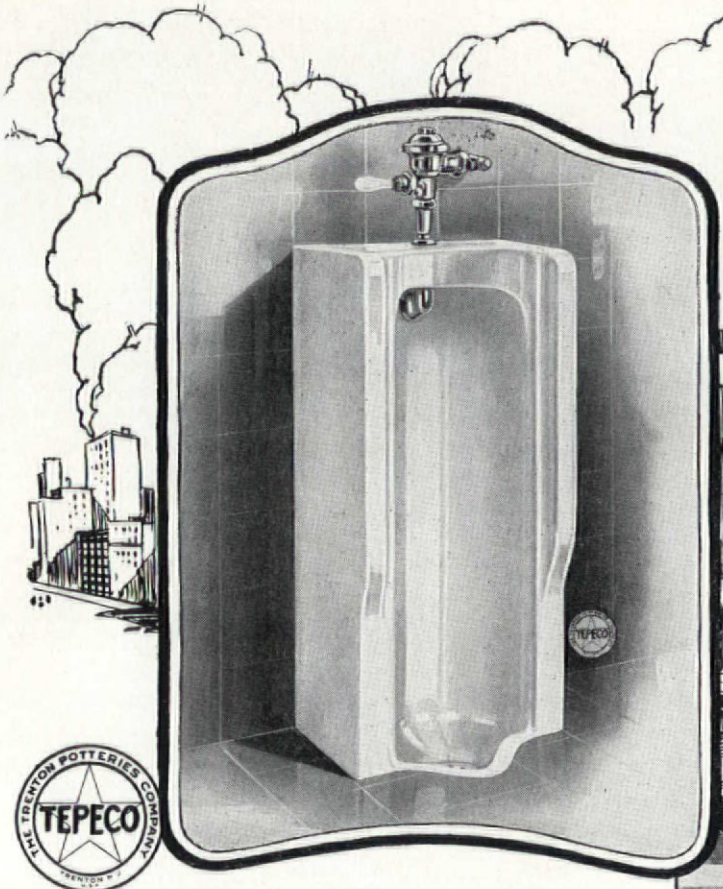
Aluminum paint has distinctly superior moisture-proofing efficiency. Because it has a pigment of pure aluminum, it forms a *coat of metal protection*. It is this metal protection that keeps moisture content within safe limits.

ALCOA ALUMINUM ALBRON

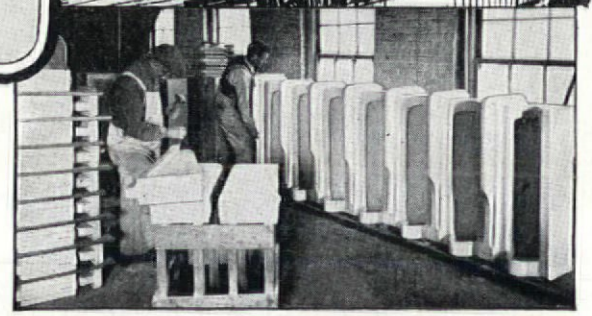
Aluminum Company of America does not sell paint. But aluminum paint made with satisfactory vehicles and Alcoa Albron Powder may be purchased from most reputable paint manufacturers, jobbers and dealers. Be sure the pigment portion is Alcoa Albron and is so designated.

Let us send you the booklet, "Aluminum Paint, the Coat of Metal Protection". Address ALUMINUM COMPANY *of* AMERICA; 2467 Oliver Building, PITTSBURGH, PA.

ALCOA ALBRON
POWDER FOR
ALUMINUM PAINT







Removing the Last Barrier to Perfect Sanitation

THE "Tepeco" line of Solid Porcelain and Vitreous China Urinal Stalls is made for single installations or in battery. The "Tepeco" method of interlocking stalls with separate seam covers does away entirely with the unsanitary space between stalls usually found in other installations.

Because of variations in height of urinals these seam covers are cut to fit each pair of stalls, and form clean, water-tight joints from wall to floor. This method also permits an easy and quick installation, the covers being placed in position after the stalls have been set. Single or in battery, the "Victory" stall is the perfect sanitary appointment for hotels, clubs and institutions.

THE TRENTON POTTERIES COMPANY
Trenton, New Jersey, U. S. A.

NATIONAL SHOWROOM
New York City, 101 Park Ave.
Entrance on 41st St.

BRANCH OFFICES
Boston, Philadelphia and
San Francisco

Export Office: 115 Broad Street, New York City

OUR GUARANTEE—We make but one grade of ware—the best that can be produced—and sell it at reasonable prices. We sell no seconds or culls. Our ware is guaranteed to be equal in quality and durability to any sanitary ware made in the world. The Te-pe-co trade-mark is found on all goods manufactured by us and is your guarantee that you have received that for which you have paid.

Every "Tepeco" Urinal Stall is trued and fitted by an expert stone cutter.

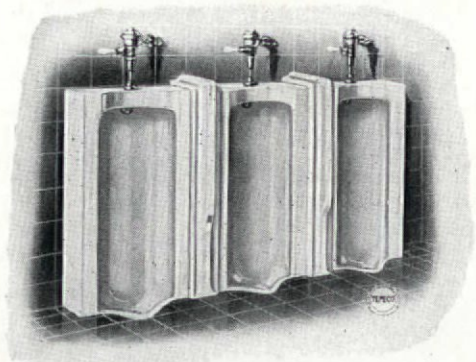


PLATE 3640-R

Showing 3-part battery of "Tepeco" Stalls. No catch corners for soil to collect.

TE-PE-CO
ALL-CLAY PLUMBING FIXTURES

Concrete Joist Floor Construction



New Union Industrial Bank Building
Flint, Michigan

Architects and Engineers:
Smith, Hinchman & Grylls

Contractor:
Realty Construction Company

Sets High Standard at Low Cost

THE wide acceptance of concrete joist floor construction among architects and engineers is significant of the economy in design, the reduction in dead load and the saving in time resulting from the high speed of construction attained.

Foremost in the field of pre-built forms for concrete joist floor construction are Meyer Steelforms—installed and removed by an organization that is equipped by experience to render the most effective cooperation to your superintendent and the contractor on the job.

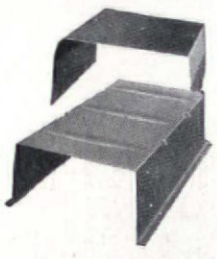
CONCRETE ENGINEERING COMPANY

General Offices: Omaha, Nebraska

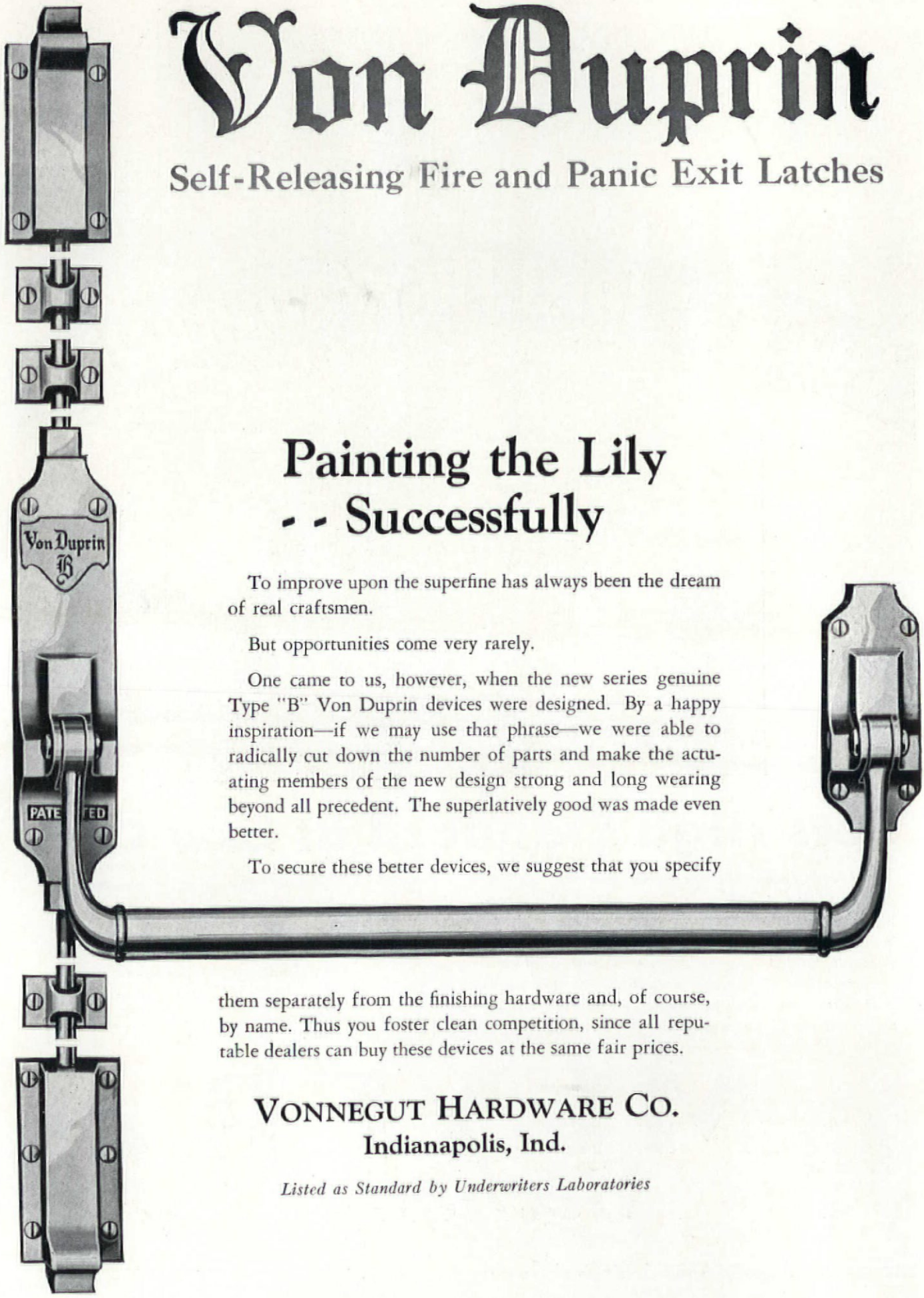
Sales Offices and Warehouses: New York Chicago Cleveland Detroit Milwaukee Minneapolis St. Paul Lincoln Des Moines Kansas City Wichita St. Louis Dallas Houston San Antonio Oklahoma City Los Angeles Oakland San Francisco

MEYER Steelforms

THE STANDARD



THE ORIGINAL REMOVABLE STEELFORMS FOR CONCRETE JOIST FLOOR CONSTRUCTION



Von Duprin

Self-Releasing Fire and Panic Exit Latches

Painting the Lily - - Successfully

To improve upon the superfine has always been the dream of real craftsmen.

But opportunities come very rarely.

One came to us, however, when the new series genuine Type "B" Von Duprin devices were designed. By a happy inspiration—if we may use that phrase—we were able to radically cut down the number of parts and make the actuating members of the new design strong and long wearing beyond all precedent. The superlatively good was made even better.

To secure these better devices, we suggest that you specify them separately from the finishing hardware and, of course, by name. Thus you foster clean competition, since all reputable dealers can buy these devices at the same fair prices.

VONNEGUT HARDWARE CO.
Indianapolis, Ind.

Listed as Standard by Underwriters Laboratories



The Modernistic Movement

Plate 2

The Blackstone Shop is known as one of the most exclusive mercantile establishments on Michigan Boulevard, Chicago. The building itself—modern in design and flawless in craftsmanship—has brought additional distinction to the business. It was designed by Philip B. Maher and constructed largely of Neshobe Gray marble.

VERMONT MARBLE COMPANY—PROCTOR, VERMONT

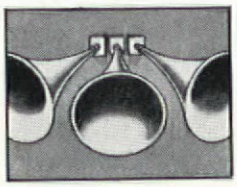
Branches in the larger cities

See Sweet's Catalog for Specifications and Other Data

VERMONT MARBLE



The Speech that Teamwork Built



Architect and Acoustic Engineer help speaker put it over...

The speaker rises. Every word he says carries — to every part of the room. People in the rear seats hear with front row ease.

Teamwork does it. Teamwork between the architect and an acoustic engineer in planning rooms where every person can hear, and in the proper installation of Public Address equipment.

The Western Electric Public Address System acts as a miniature interior broadcasting station. It widens the hearing circle, transmits speech, music and entertainment. It is included in specifications for schools, hotels, hospitals, clubs, auditoriums, and public buildings.

Western Electric acoustic engineers are always ready to consult with architects at the planning stage and at the stage of actual installation.

GRAYBAR ELECTRIC CO., AR-8-30
Graybar Building, New York, N. Y.

Gentlemen: Please send us the story of the Public Address System.

NAME .....

ADDRESS .....

CITY ..... STATE .....

Western Electric

PUBLIC ADDRESS AND MUSIC REPRODUCTION SYSTEMS

Distributed by GRAYBAR *Electric Company*

AMERICA'S LARGEST CAPACITY FOR MAKING ENDURO

THE PERFECTED STAINLESS STEEL



Tapping a twenty-five ton Electric Furnace in one of the two modern plants in which Republic produces Enduro Nirosta KA2, the perfected Stainless Steel—under the original Krupp patents.

JUST two years ago Republic's alloy division first made Enduro Nirosta KA2 available to American industry. Even in this brief period, demand for this perfected stainless steel has become so widespread that Republic's capacity for its production, already the largest in the world, is now being still further increased.

Republic, with Enduro, provides the major portion of the stainless steel for radiators, lamps and other parts of motor cars, where permanent lustre is required.

Architects, engineers — builders of dairy machinery, food utensils, kitchen and hospital equipment — oil refiners — chemists — and scores of manufacturers in other industries, are finding Enduro's exceptional qualities wonderfully useful in countless ways.

The glittering tower of New York's mammoth Chrysler Building is sheathed in Enduro. Pilasters of the even taller new Empire State Building will be covered with this same fascinating alloy.

Enduro is stronger than carbon steel—impervious to rust, corrosion and the vicious attacks of most acids. Yet it is easy to work. The gleaming finish cannot wear thin or chip off because, unlike a plated surface, it is the same all the way through.

When polished, Enduro is as lustrous as the finest silver — and it will not tarnish.

A stainless metal with such remarkable properties will greatly increase the usefulness, appearance and profitable saleability of hundreds of products in hundreds of fields. Republic metallurgists will gladly work with any manufacturer in adapting Enduro to new needs and new uses.

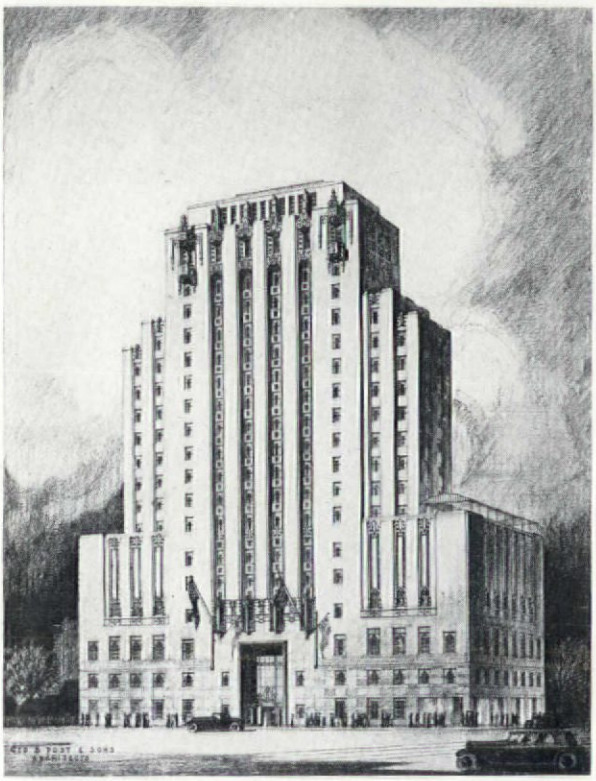
REPUBLIC STEEL

CORPORATION

GENERAL OFFICES: YOUNGSTOWN, OHIO

Geo. B. Post & Sons Give Their

ENDOWED with a richness of heritage and tradition equalled by few architectural offices, the firm of Geo. B. Post & Sons has done a larger volume of work since the death of the founder than was done during his long brilliant career.



National Town and Country Club, Cleveland, one of the recent commissions of Geo. B. Post & Sons.

Mr. Post began the practice of architecture in 1860. His son, William S., joined him, after graduating from the School of Mines, Columbia University, Department of Architecture, in 1890. A second son, J. Otis, having studied at Columbia and at the Ecole des Beaux Arts, in Paris, entered the office in 1901. In 1904 the present firm was formed, and from that date until January first this year, when William S. Post, F.A.I.A., retired, the sons carried on. W. Sydney Wagner became a full partner in 1925 and resigned June 30, 1929. J. Otis Post is now in command and the business is as virile and prosperous as at any time in its history.

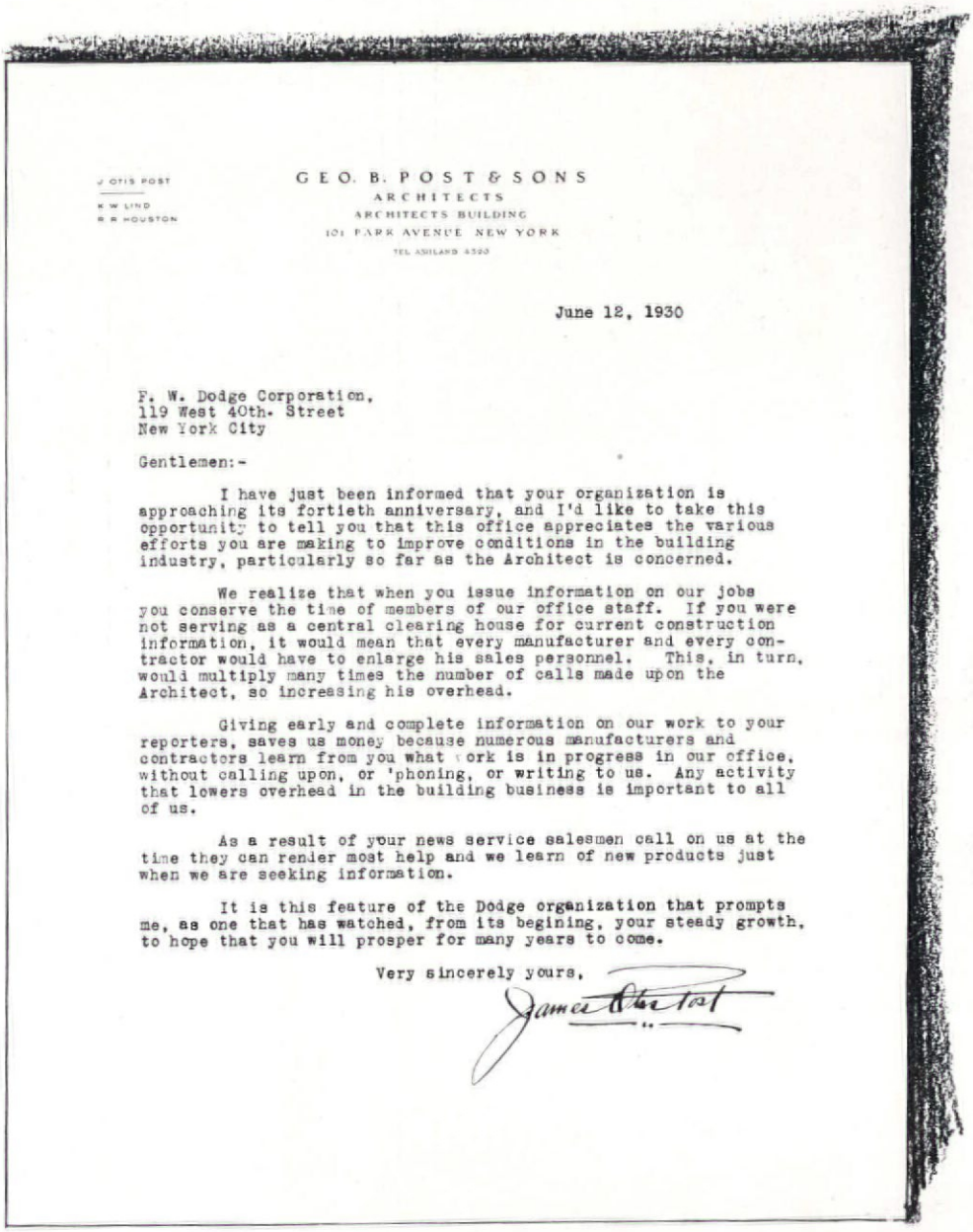
Mr. J. Otis Post, F.A.I.A., is a past President of the Beaux Arts Institute of Design and the Society of Beaux Arts Architects. He is a Member of the American Group, International Congress of Architects.

Among the large number of important projects handled by this office, the following are outstanding: New York City residence of Cornelius Vanderbilt, Manufacturers' and Liberal Arts Building, Chicago World's Fair, New York Produce Exchange, built in 1883 and still in use, St. Paul Building, Broadway and Ann Streets, New York's first (29 story) skyscraper, built in 1899, also still in use, Buildings of the College of the City of New York, to which the Vocational Building is now being added, New York Stock Exchange, Wisconsin State Capitol Building, Hotels Statler in Boston, Buffalo, Cleveland, Detroit, and St. Louis; Roosevelt Hotel, New York, Olympic Hotel, Seattle; National Town and Country Club, Cleveland Trust Company, Mount Sinai Hospital, Stillman Theatre and Wade Park Manor, all in Cleveland; Samaritan Hospital, Troy; Stamford Hospital, Stamford, Conn., and the apartment houses at 602-8 East 84th Street and 817 Fifth Avenue, New York.



An interesting Group of Prominent Architects and Artists in charge of the World's Columbian Exposition, in Chicago. The photograph dates from May, 1892. Reading from left to right, the men are: Daniel H. Burnham, P. P. A. I. A. (1894-5), George B. Post, P. P. A. I. A. (1896-8), M. B. Pickett, Henry Van Brunt, P. P. A. I. A. (1899), F. D. Millet, Maitland Armstrong, Col. E. Rice, Augustus St. Gaudens, Harry S. Codman, George V. Maynard, and Charles F. McKim, P.P.A.I.A. (1902-3).

Endorsement to DODGE REPORTS



J OTIS POST
K W LIND
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GEO. B. POST & SONS
ARCHITECTS
ARCHITECTS BUILDING
101 PARK AVENUE NEW YORK
TEL ASHLAND 4320

June 12, 1930

F. W. Dodge Corporation,
119 West 40th. Street
New York City

Gentlemen:-

I have just been informed that your organization is approaching its fortieth anniversary, and I'd like to take this opportunity to tell you that this office appreciates the various efforts you are making to improve conditions in the building industry, particularly so far as the Architect is concerned.

We realize that when you issue information on our jobs you conserve the time of members of our office staff. If you were not serving as a central clearing house for current construction information, it would mean that every manufacturer and every contractor would have to enlarge his sales personnel. This, in turn, would multiply many times the number of calls made upon the Architect, so increasing his overhead.

Giving early and complete information on our work to your reporters, saves us money because numerous manufacturers and contractors learn from you what work is in progress in our office, without calling upon, or 'phoning, or writing to us. Any activity that lowers overhead in the building business is important to all of us.

As a result of your news service salesmen call on us at the time they can render most help and we learn of new products just when we are seeking information.

It is this feature of the Dodge organization that prompts me, as one that has watched, from its begining, your steady growth, to hope that you will prosper for many years to come.

Very sincerely yours,

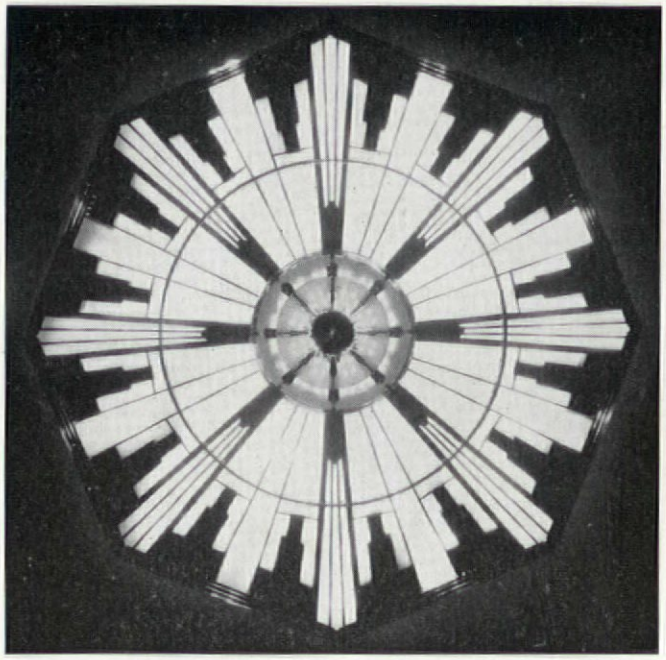
James Otis Post

DODGE REPORTS

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F. W. DODGE CORPORATION, 119 WEST 40th ST., NEW YORK AND PRINCIPAL CITIES



A TRIBUTE . . . . TO OUR FACILITIES

Looking up at the central lighting fixture in the trading room of the recently completed Board of Trade Building, Chicago—Holabird and Root, Architects — Lighting by PEARLMAN.

It is conceded to be the largest lighting fixture in the world—38 feet in diameter—weighs 8½ tons—134,000 watts.

Indicative of the character of the work we are able to design, make and install.

All of our facilities are available to the architectural profession for research and consultation. Ask us to send you our series of Lighting Studies in plate form as they appear —no obligation of course. » » »

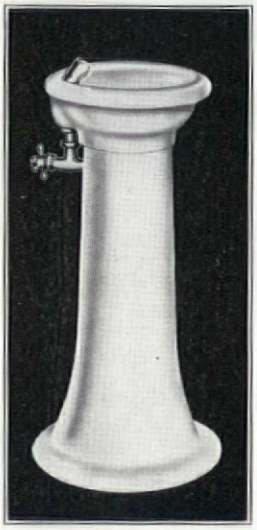
Victor S. Pearlman & Company

DESIGNERS AND MAKERS OF

DISTINCTIVE LIGHTING FIXTURES

533 South Wabash Avenue • CHICAGO

Thousands of Drinks! Each One Clean and Sanitary





HOT days. Sweltering bodies. Parched throats. Throngs all day long taking their turn at public drinking fountains. In stations, hotels, and other public places where drinks are numbered by the thousands daily, here, the true superiority and battleship construction of the new Century Automatic Drinking Fountains are at once apparent.

Each turn of the handle produces a clear, full drinking stream. A clean, wholesome drink! A bubbler so constructed that no lips can touch it; that no water from the drinker's mouth can fall back on the source of the water. This is sanitation. And more amazing is the simple, all-brass construction of this unique invention, that guarantees years of care-free service. Investigate these fountains fully. Learn why Chicago and other metropolitan health authorities are approving them and demanding this new standard of sanitation. The complete line of new Century Fountains is available in colors. Write today for detailed information.

CENTURY BRASS WORKS, Inc.

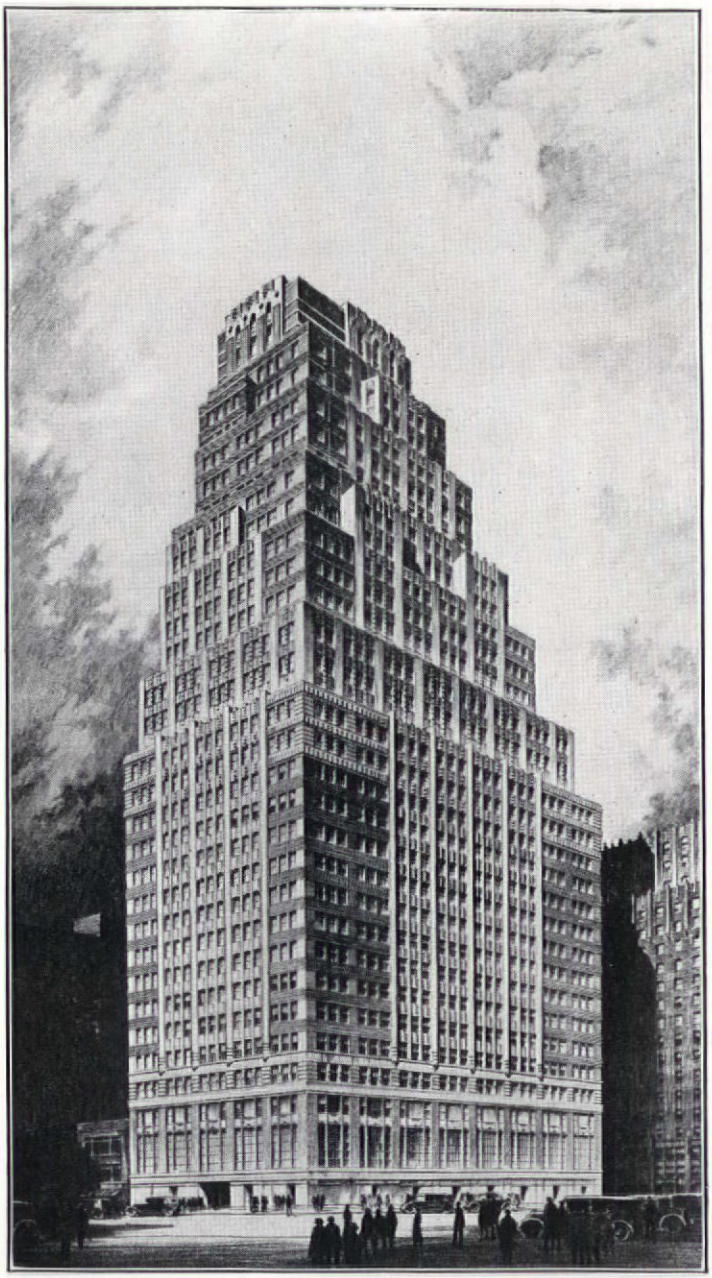
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Century SANITARY DRINKING Fountains

PIERCE–EASTWOOD RADIATION

IS SELECTED FOR THE 33 STORY BRICKEN TEXTILE BUILDING



BRICKEN TEXTILE BUILDING
1441 BROADWAY (cor. 41st St.), NEW YORK

ELY JACQUES KAHN - - ARCHITECT
RAISLER HEATING COMPANY - HEATING CONTRACTORS
BRICKEN CONSTRUCTION COMPANY - - BUILDERS

In the vanguard of the uptown march of the needle trades, the Bricken Textile Building embodies the most advanced provisions for comfort and convenience.

Indicative of the caliber of its equipment is the fact that Pierce-Eastwood Radiation will be used to circulate healthful warmth throughout its thirty-three stories.

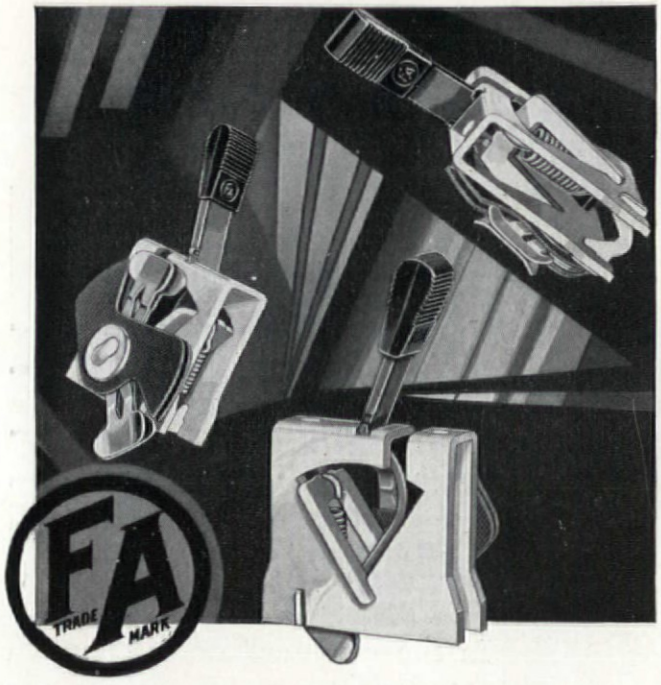
Its name is proudly added to an impressive roster of modern buildings in which Pierce heating equipment safeguards the health and comfort of the tenants.

Data on Pierce boilers and radiators for every type of installation are now available on standard AIA forms. Complete files mailed on request.

PIERCE, BUTLER & PIERCE MFG. CORP.
41 East 42nd Street, New York
Branches in Principal Cities
Manufacturers of Heating Equipment Since 1839

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BOILERS *and* RADIATORS



Built Strong to Last Long—
Dependability

We "threw" this switch in constant operation more than 100,000 times—more than you will in a lifetime. This was to prove that this part—*the only moving part on a panelboard*—would give you service as long as the building stood in which an Ⓕ Panelboard was installed.

This sturdy construction, rugged, simple design and broad electrical contact is typical of all Ⓕ Products.

Ⓕ PANELBOARDS are standardized so that qualities such as these put in by Ⓕ engineers would repeat themselves exactly in every Ⓕ Panelboard you buy.

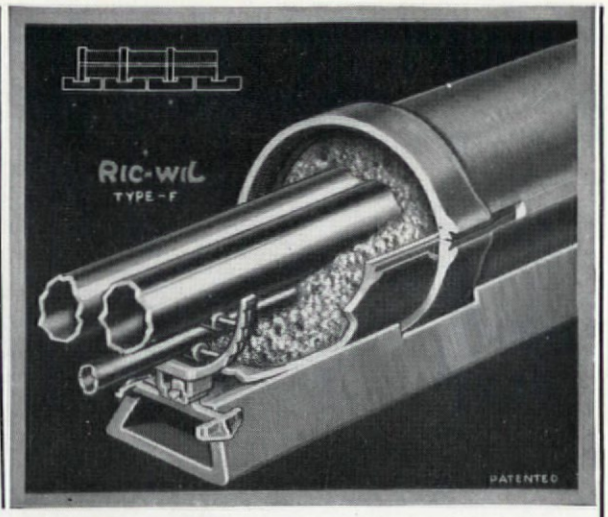
No-maintenance is your reward—and ours—for giving the simple specification "Ⓕ Panelboards" in your panelboard purchases.

Send for the Ⓕ Catalog No. 45
Free upon request

Frank Adam
ELECTRIC COMPANY
ST. LOUIS

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IF YOU WANT A PERMANENT JOB



Cross section of RIC-WIL Type F, Tile or Cast Iron Conduit, showing multiple pipe support.

—if you want to be positive that your underground heating pipes will be permanently protected and efficiently insulated, you will want a RIC-WIL installation. With RIC-WIL on the job you can forget your underground pipes for all time. A leak is the only possible cause for repairs—and RIC-WIL construction makes pipe repairs easier and less expensive than with any other type.

—and RIC-WIL is more than a product

RIC-WIL Engineers have devoted over twenty years to the problem of insulating and protecting underground pipes. No matter what your problem may be, they can recommend an installation that will meet your every requirement. They do all the preliminary engineering work—you will find the actual installation of RIC-WIL is a speedy and simple mechanical job because complete Service Details are furnished with each RIC-WIL order.

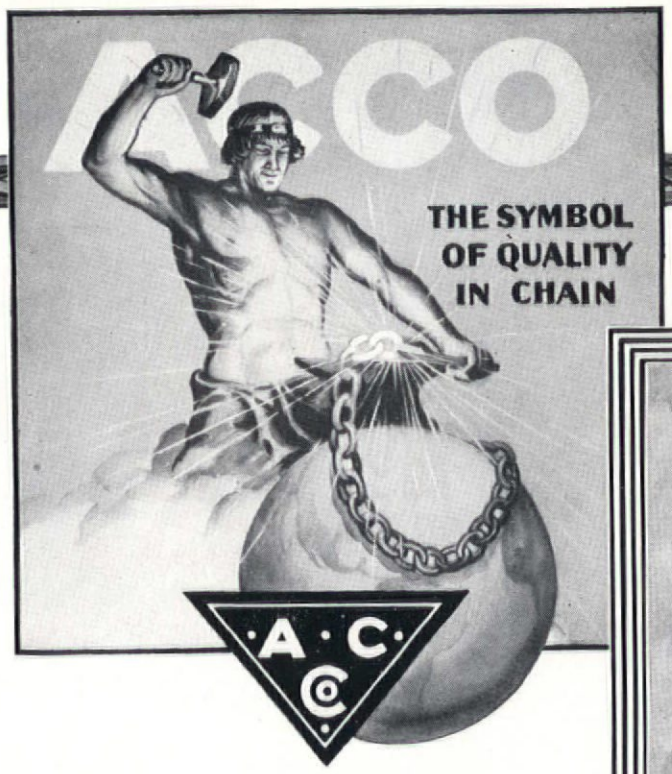
RIC-WIL Engineering Service is at your disposal. Write for specifications, A & E Sheets, and Service Details of typical installations.



The Loc-liP Side Joint on RIC-WIL Conduit is so shaped that the cement is locked in place and also locks the two halves firmly together, making a permanently watertight joint. This Loc-liP Joint adds to the strength of the conduit and provides a closed, waterproof housing for the pipes and Dry-paC insulating filler. It is one of the important exclusive features of RIC-WIL construction.

THE RIC-WIL COMPANY
1573-A Union Trust Building · · · *Cleveland, Ohio*
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RIC-WIL
UNDERGROUND CONDUIT



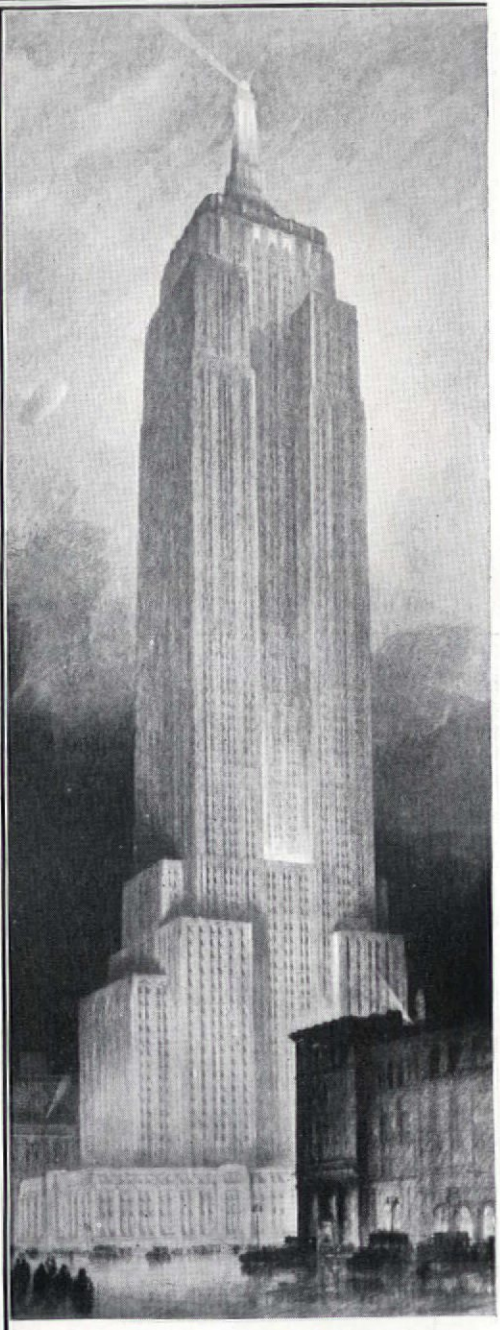
PERFECT window operation is of paramount importance—especially in office and hotel buildings where thousands of windows are raised and lowered each day.

American Sash Chain is uniform in strength, shape and finish. The metal used in its manufacture must pass required tests and the chain is rigidly inspected at each process of manufacture.

The American Society for Testing Materials fully recognizes the superiority of copper-bearing steel which is used in its manufacture. Also, American Sash Chain bears the approval of the Investigating Committee of Architects & Engineers. Write for full particulars—in handy booklet form.

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AMERICAN SASH CHAIN



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New York City

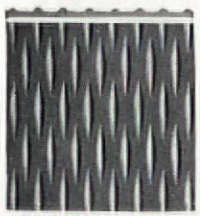
Equipped throughout with
AMERICAN SASH CHAIN
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Builders: *Starrett Bros., Inc.*

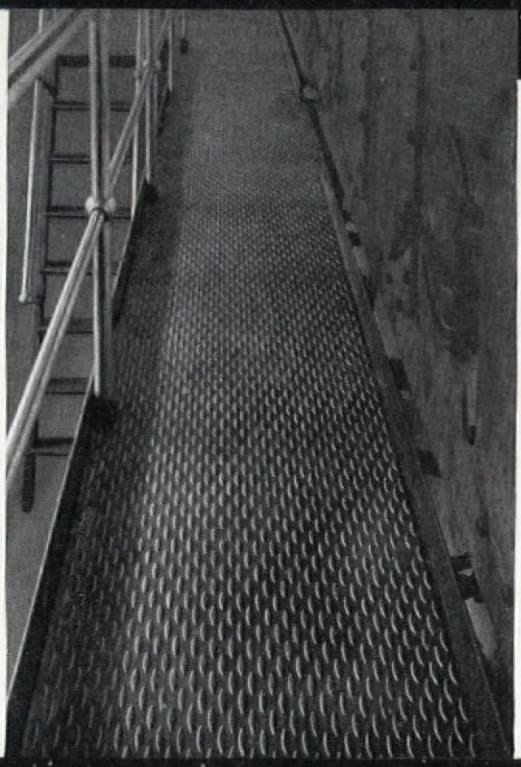
Platforms Like This Need Safe, Anti-Slip "A.W." Floor Plate



"A.W." Diamond
(¼ size)
Furnished in rolled steel (also in aluminum) and all commercially-rolled metals, in thicknesses of from ⅛" to 1".



"A.W." Diamondette
(¼ size)
Furnished in rolled steel (also in aluminum) and all commercially-rolled metals, in Nos. 16 to 12 Gauges, and in other thicknesses up to ⅜."



"A.W." Floor Plate makes platforms, floors and other under-foot surfaces non-slipping and safe. The raised diamond pattern gives traction and anti-slip qualities at all times. The round-top, oval-shape diamonds are spaced and proportioned so that feet get a firm, sure foothold.

"A.W." Floor Plate is also self-draining from every angle, as the raised pattern has no flat surfaces to accumulate oil, water or refuse. This is an additional safeguard against slips and falls.

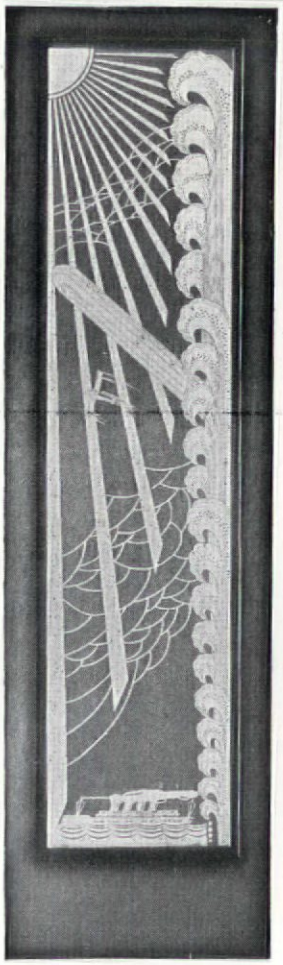
Samples of "A.W." Floor Plate, with interesting booklets, gladly sent on request. Write us.

ALAN WOOD STEEL CO.

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"A.W." Diamond Pattern Rolled Steel FLOOR PLATE



SEE OUR Catalogue in SWEETS

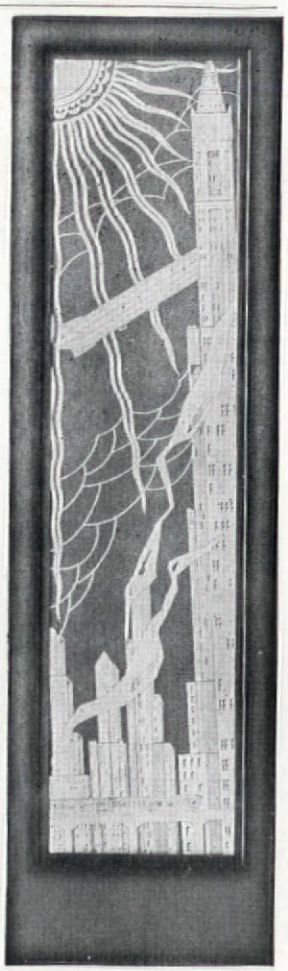
Specialists In Stainless Steel

Located in the heart of the stainless steel industry, United Metal Products Company has been closely associated with all steps in the development of this amazing material. As a result, stainless steel jobs, such as the one now in progress for the Empire State Building in New York City, go through the United plant on a production basis. All experimentation is long since past. The United organization has become known as stainless steel specialists.

Beautiful etched effects for interior ornamentation—intricate formations for exterior trim—are part of regular production schedules. Write to us for information on stainless and its manifold applications.

THE UNITED METAL PRODUCTS CO.

CANTON, OHIO





PLEASE

Check Up Your File No. 35J1.

This series of bulletins on the subject of cleaning methods has been prepared for the use of architects.

Each Bulletin is illustrated with installation views, layout plans and contains many references of value when you are planning a new building.

The Spencer Turbine Company

Hartford
Connecticut

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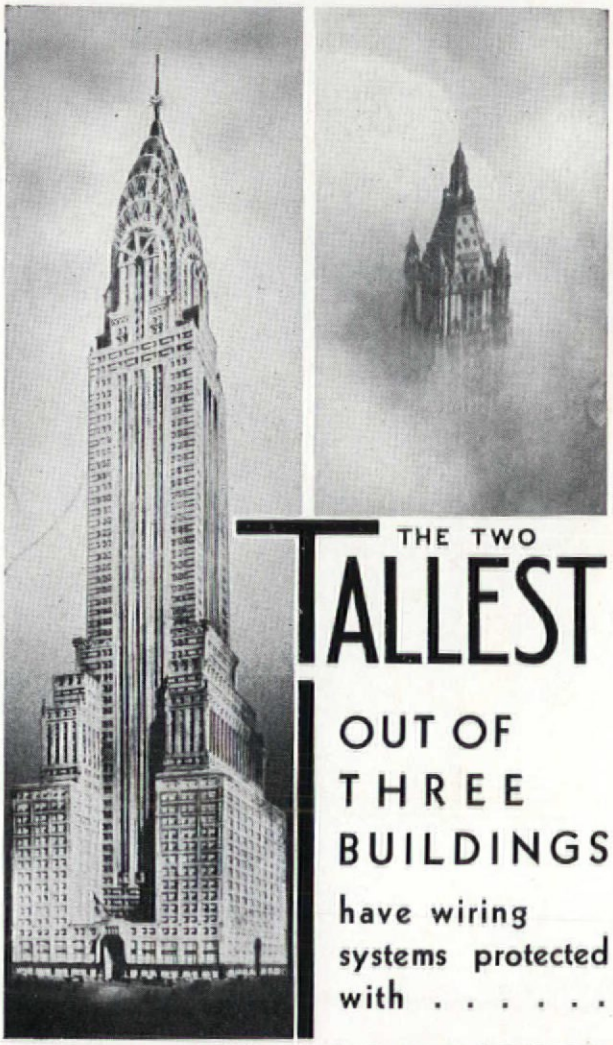
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and thousands of other buildings in our own and other countries have this same permanent protection with these conduits.

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MAKE YOUR CLIENTS THEIR OWN "WEATHER MAN"



The Los Angeles City Hall . . . John C. Austin, Albert C. Martin, and John Parkinson, architects.

A Decade of Use Proves Superiority of Thompson Sprinkling Systems

FOR nearly twenty-five years Thompson has been making sprinkling equipment. During twelve of those years Thompson Concealed Lawn Sprinkling Systems have been keeping countless grounds as beautiful and lovely as they were when first planted.

So when it came to perpetuating the landscaping beauty of the Los Angeles City Hall, of course Thompson was chosen.

A free booklet, A.I.A. 38-h, awaits your request.
Or see pages 4076-77, Volume C of Sweet's.

Thompson Sprinkling Systems

LAWNS ORCHARDS GARDENS NURSERIES GOLF COURSES Etc.

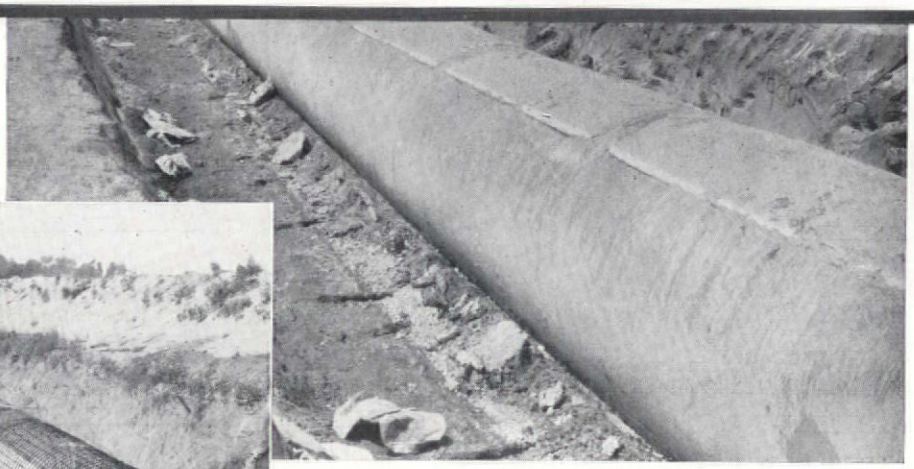
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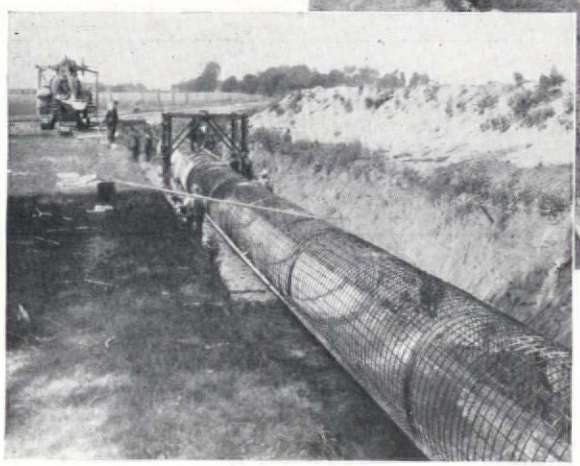
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LIME FOR WORKABILITY » »





Hydrated lime used as an admixture in 8-mile concrete aqueduct, 5 ft. diameter and 115 ft. head. St. Paul, Minn. Lloyd Thompson, Construction Engineer.

AND WATERTIGHT CONCRETE

THE value of hydrated lime as an admixture is evidenced not only in the greatly increased workability but also in the watertightness and permanence of the concrete.

Lime fills the voids in concrete, gives a smoother flowing mix, and prevents separation and segregation of the ingredients--thus eliminating honeycombing and increasing the watertightness. Lime also insures more intimate contact with the reinforcing and reduces the time and cost of placing and finishing the concrete.



Rely on LIME
-tested by time

Extreme workability and a high degree of watertightness are essential in concrete aqueduct construction; and these combined properties are obtainable only through the use of a lime admixture.

The latter statement is based, not upon the results of one operation, but upon hundreds of concrete jobs of every size and nature throughout the country.

Our latest booklet on the advantages of hydrated lime in concrete construction will be sent upon request. Write for your copy today.

NATIONAL LIME ASSOCIATION

An organization of leading lime manufacturers formed to encourage a better appreciation of the economic value of lime in all its uses.

109-A 713 PHILLIPS BUILDING « WASHINGTON, D.C.

Fretz-Moon



Isn't it a fact—

that all the time lost in the preliminary stages of building mean just that much less time for the finishing operations.

Just another reason why Fretz-Moon Conduit should be specified. Perfect threads and couplings, positive welds and a glass like enamelled interior,—all make for a workmanlike job—quickly.

Write for literature.

FRETZ-MOON TUBE COMPANY, Inc.
Butler, Pa.



RIGID CONDUIT

Wood Floors Last—No Dry Rot Guarantees Secure Sleeper Anchorage



STEP SIX—LAYING WOOD FLOOR. *After sleepers are securely in place, wood floors are laid. Sleepers and floors are laid without waiting for fill to dry.*

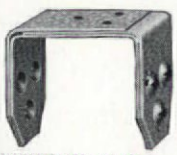
THE Bull Dog Method of anchoring wood floors over concrete ***eliminates dry rot.*** This doubles floor life, for, because of dead air space, sleepers do not deteriorate. If desired, concrete headers can be placed at intervals.

Other points in favor of the Bull Dog Method are: no fill to dry, no beveling or shimming, sleepers and finished floor laid at same time; reduction of dead load 18,000 lbs. to 1,000 square feet of slab area; permanent and secure anchorage, preventing buckling, squeaking and doming. The Junior Clip (5/8" wide) may be used with or without a fill (dependent on the service duty of the floor.) When a fill between the sleepers is desired, any cheap, inexpensive mix such as sand, cinders or cinder concrete can be used.

Millions of BULL DOG FLOOR CLIPS on over 8,000 jobs carry testimony of satisfaction. Made for 2, 3 and 4 inch sleepers. Regular and Junior Styles. Friction tight nailing facilities (nails gratis.) Write for catalog and samples.

THE BULL DOG FLOOR CLIP CO.
108 N. First Ave., Winterset, Ia.
135 Representatives—15 Warehouse Stocks

BULL DOG Floor Clips



REGULAR CLIP—*3 sizes, 2, 3 and 4 in. 20 gauge galvanized iron.*

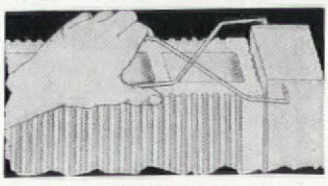
Original Patent granted June 14, 1921
Reissue Patent granted June 29, 1924
Process Patent granted May 19, 1925



JUNIOR CLIP—*3 sizes, 2, 3 and 4 in. 18 gauge galvanized iron.*

The Bull Dog Buck Anchor

THE Bull Dog Buck Anchor forms a rigid truss in the mortar joint which prevents the movement of the buck in any direction. It eliminates the use of nails, screws, bolts, tie-wires, strips of metal lath and iron, and all pounding against the back sides of the buck. Made in three widths of No. 10 Galvanized Steel Wire: 3 in., 4 in., 6 in. Ten per cent of anchors in packing cases are shorts to take care of spaces too short for the regular size anchor.



A. D. T. protects new Town and Country Club



A.D.T. PROTECTION SERVICES

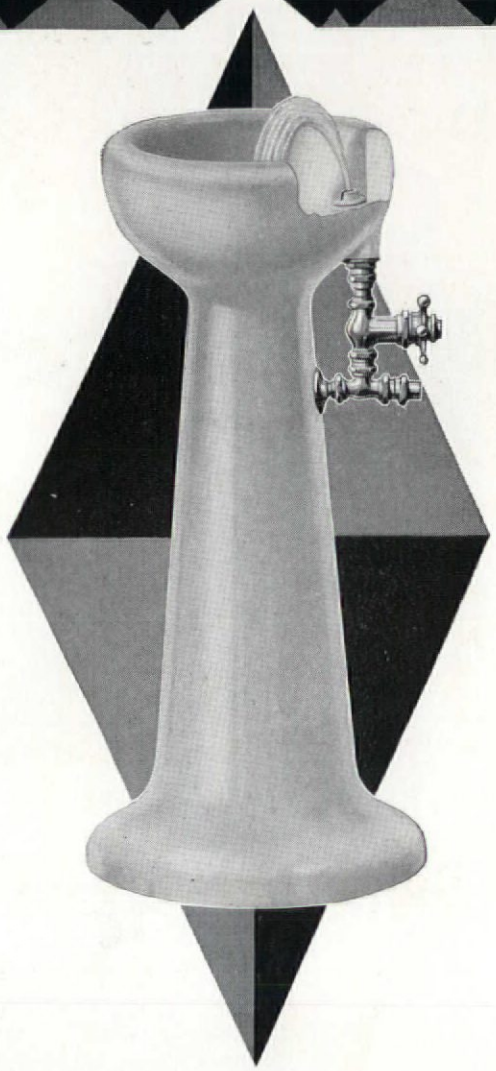
National Town and Country Club Cleveland, Ohio
George B. Post & Sons, New York, Architects
Thompson, Starrett Co., General Contractors and Engineers, New York
W. S. Ferguson & Co., Supervising Architects, Cleveland

THE new National Town and Country Club, Cleveland, Ohio, will have complete protection against fire through A. D. T. Central Station Service. A. D. T. Watchman's Compulsory Tour, Fire Alarm and Local Gong Services are being installed to safeguard this modern building.

Modern buildings of all types adopt A.D.T. Services for the ultimate in protection. Available for local owner operation or for operation through A. D. T. Central Stations in all principal cities.

Controlled Companies of
AMERICAN DISTRICT TELEGRAPH COMPANY
155 Sixth Avenue, New York, N. Y.

Landmarks of Modern Protection 4672



R-S Fountains Are Proven Ones!

WHEREVER Rundle-Spence Drinking Fountains are in service they have a splendid record for providing good, clear, refreshing water—free from contamination. Their special design insures a clean drink because lips cannot touch the R-S Nozzle.

The fountain shown above is one of the R-S line now made in colors. *Write for latest catalog.*

RUNDLE-SPENCE MFG. CO.
70 Fourth Street
Milwaukee, Wisc.

RUNDLE-SPENCE

WESTCOS MEET EXACTING DEMANDS



Belcrest Apartment Hotel, Detroit, Michigan
Charles N. Agree, Architect and Engineer

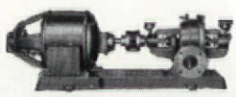
SEE OUR Catalogue in SWEETS

The installation of Westco Turbine Pumps removes the hazard of faulty, sluggish water pressure.

For this reason, apartment building owners regard Westco Turbine Pumps as a vital means of satisfying discriminating tenants.

In the exclusive Belcrest Apartment Hotel, pictured here, you will find 3 model 6-M Westcos with records of uninterrupted service. Two of these silent, smooth running pumps are employed for booster service, each having a capacity of 70 gallons per minute against a net head of 130 feet. Westco's wide operating range takes care of any fluctuations in city pressure. The third member of this Westco trio unfailingly circulates ice water throughout the entire building.

Review this pump's outstanding characteristics listed below, then you can judge for yourself why Westco Turbine Pumps are ever popular favorites.



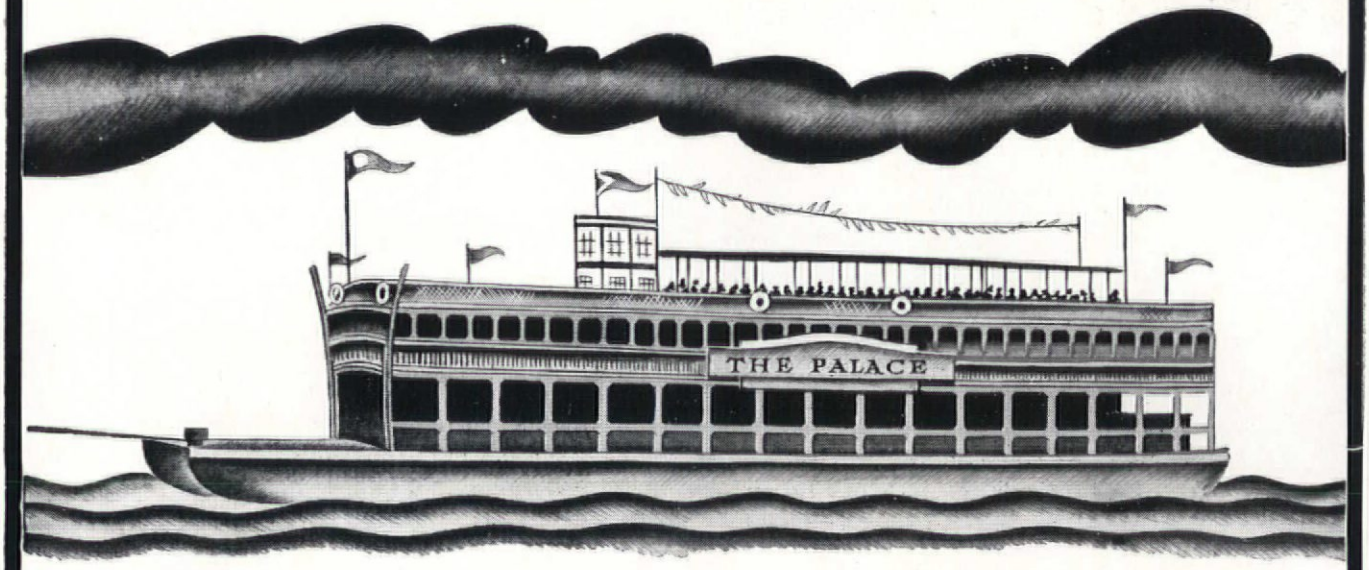
REVIEW THE IMPORTANT WESTCO FEATURES LISTED BELOW

- Wide operating range.
- No end thrust at bearings due to perfect hydraulic balance.
- Only one moving part.
- No metal to metal contact.
- High pressures in single stage.
- Ball bearing construction.
- Direct motor driven at standard motor speeds.
- Capacities from 5 to 400 g.p.m.

Write for complete descriptive and performance data

WESTCO-CHIPPEWA PUMP COMPANY
Factory and General Offices, Davenport, Iowa
Branches: NEW YORK . CHICAGO . SAN FRANCISCO

Distributors in Principal Cities



"there GOES the Show Boat"

No longer does the glittering Show Boat follow royal plumes of black smoke . . . slowly and majestically riding down the muddy Mississippi.

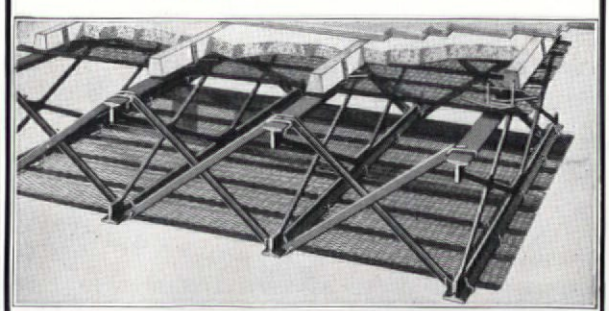
Times change. Everywhere, *Slowness* is replaced by Speed . . . Efficiency is increased . . . greater Permanency obtained. In construction methods, Wood Joists and Wood Cross-Bridging are becoming *obsoleted* by the Improved Firesafe Floor and Roof Construction.

This new method provides far greater *Strength* and *Rigidity* . . . a *Faster* job . . . with erection *Economy* and Firesafeness. The proven principles of wood floor and roof construction are employed in modern, firesafe *Steel.*

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The Kalmantruss Joist Has No Bolts, Rivets, or Welds in Tension



The Improved Firesafe Floor and Roof Construction is composed of:

Kalmantruss Steel Joists, Rigid Bridging. ⅜-inch Rib Kalmanlath. Kalman Lath Clips and Accessory Products. Kalmantruss Joists replace wood joists—one-piece joints give greater dependability. Kalmantruss Rigid Bridging replaces wood cross-bridging—and insures proper distribution of loads

METAL LATH · FURRING *and* LATHING PRODUCTS · HOME BUILDING PRODUCTS · STEEL DOOR FRAMES · STEEL JOISTS *and* ACCESSORIES · REINFORCING STEEL *and* CONCRETE ACCESSORIES · ROAD PRODUCTS



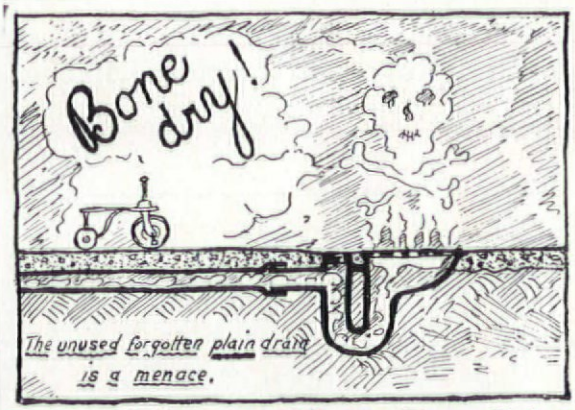
BUSINESS CHAIRS

for the GENERAL OFFICE . . . . . .

THE NEW OFFICES of the Chatham and Phoenix National Bank and Trust Company, New York City are shown above. A conspicuous part of this installation is the B. L. Marble Business Chairs. Many years of practical experience in manufacturing qualifies us to be of unusual assistance to the Architect on seating equipment for banks, courthouses, city halls, and other public and commercial buildings. Drawings and detailed specifications will be submitted without obligation.

Complete Catalog will be mailed on request

THE B. L. MARBLE CHAIR COMPANY
BEDFORD, OHIO, U. S. A.
NEW YORK OFFICE: 101 PARK AVENUE · TELEPHONE CALEDONIA 7026



This can't happen with our Brass Valves

If it's worth . . .

a set of plans, it's worth while to specify these drains—the additional cost is negligible.

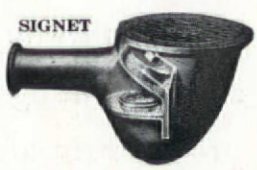
GATEWAY



This drain complies with the Ohio code

See our catalog in SWEET'S, Pages D4176-D4177.

SIGNET



CRAMPTON-FARLEY BRASS CO., Kansas City, Mo.

CALDWELL SASH BALANCES

Backed by Forty Years' Experience



SIDE

Each Caldwell Sash Balance has a quality built into it that assures satisfaction, and maximum length of service.

Box Frames can be eliminated, thus contributing greatly to making a building of warm construction. They also permit the use of narrow mullions and double hung windows in rows to give the casement effect. Mortises can be cut at the mill to one size. When the saving of labor and material is considered, they cost no more than ordinary weights and cords.



TOP

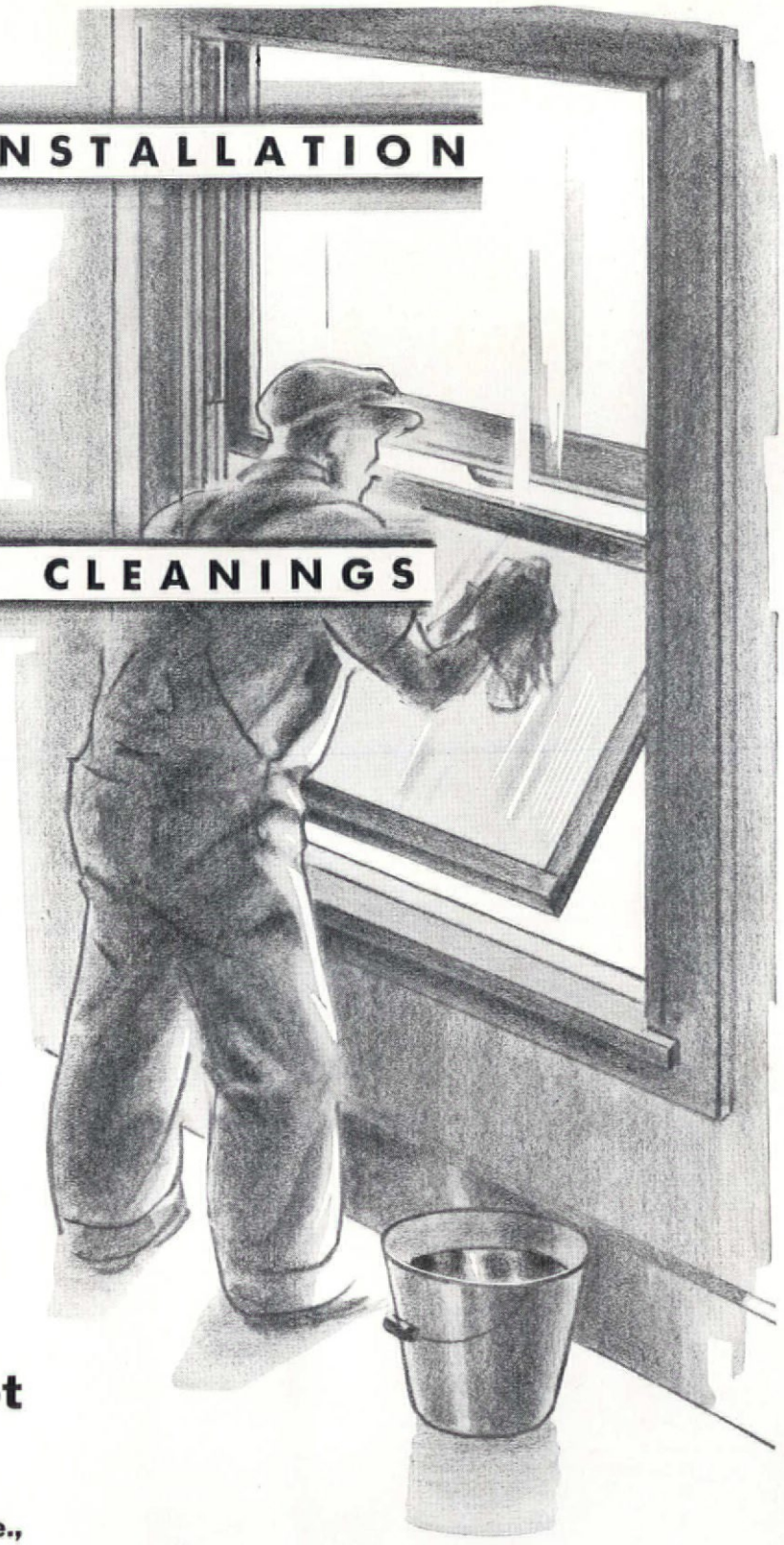
Send for booklet "Present Day Architect"
Giving Mortise Dimensions

CALDWELL MANUFACTURING COMPANY
ROCHESTER, NEW YORK, U. S. A.

ONE INSTALLATION

BUT

HUNDREDS OF CLEANINGS



Windows are installed once—but they are *cleaned* hundreds of times, and the cost of cleaning over a wide span of years far overrides the initial cost of the windows.

That is why Williams Equipped Windows which are reversible and cleaned from the inside at a great reduction in cleaning costs—pay for themselves many times over.

The Williams Pivot Sash Company

East 37th St. at Perkins Ave., Cleveland, Ohio

For 26 years manufacturers and installers of Reversible Window Equipment

WILLIAMS REVERSIBLE WINDOW EQUIPMENT
Clean Your Windows from the Inside

"KANE QUALITY"

Venetian • Blinds



Soft, Diffused Light • and *Ideal* Ventilation •

in Offices · Schools · Hotels · Public Buildings · and Residences ·

No more blinding, bright, eye-piercing light rays when "Kane Quality" Venetian Blinds are installed. For these efficient and decorative blinds, by means of easily adjusted slats, soften and diffuse the rays of light and eliminate glare.

Room temperatures are materially lowered by providing ideal ventilation without direct drafts thru flexible control of air currents and excluding direct rays of light.

Economy in the use of artificial light is obtained by directing natural light to distant areas, and efficiency of workers is thereby greatly increased.

The pleasant distinction of rich color harmony adds charm and beauty to any room.

"Kane Quality" Venetian Blinds are made in several types, from Genuine Port Orford Cedar which does not warp, check or split. Attractive appearance and serviceability are assured for a long period of years without expense for upkeep or replacement.

KANE MANUFACTURING COMPANY . . . . . .

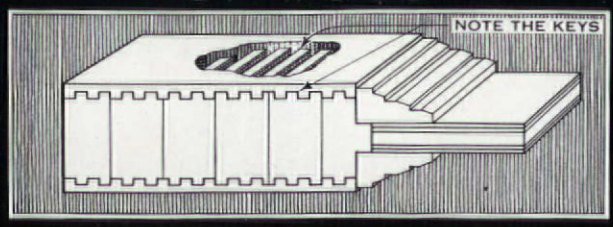
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KANE, PENNA. SINCE "KaneQuality" 1890 Complete Catalog in Sweet's

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Victoria Dispensing Cabinets are made of pressed steel in chrome, white enamel and other attractive finishes. Patented device permits



cabinet to be opened to a horizontal position for convenient refilling. These modern cabinets can be locked to prevent theft of tissue.

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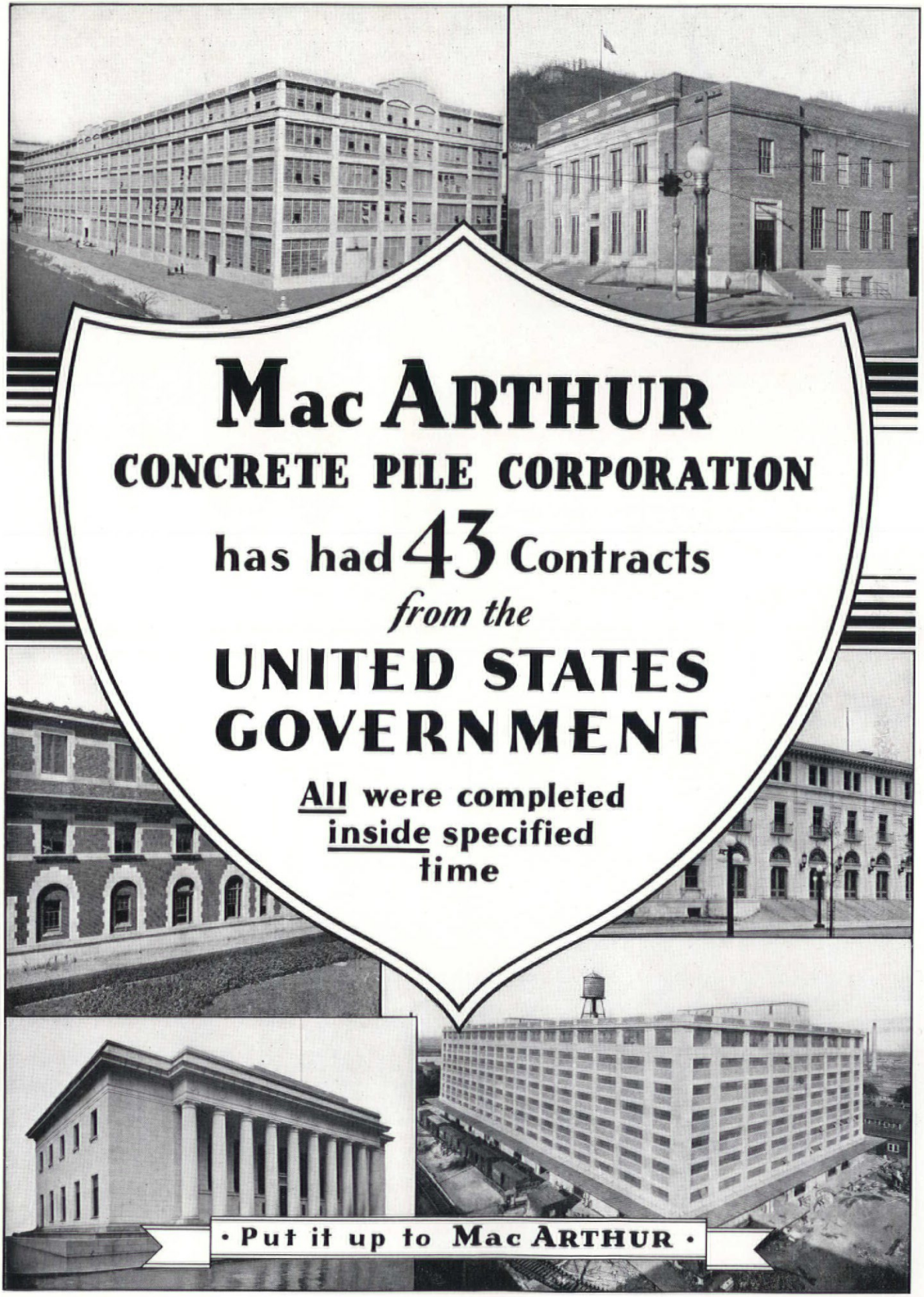
The modern way to dispense toilet tissue is the cabinet way! That is why Victoria interfold tissues and dispensing cabinets are used in leading buildings everywhere. Victoria tissues are always dependable in quality. Our cabinets check waste and protect the tissue from dust and unsanitary handling. Write for full information. The Victoria Paper Mills Co., Fulton, N. Y.

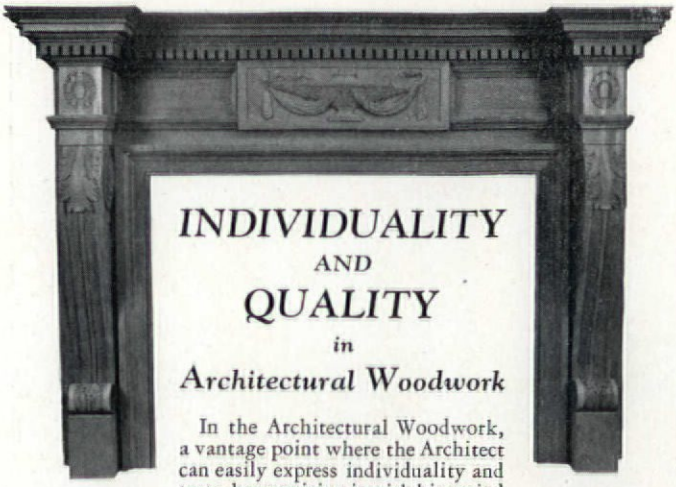
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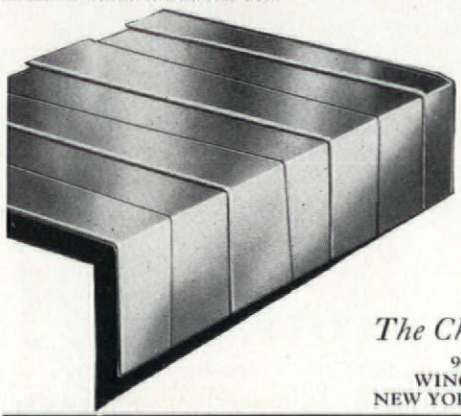
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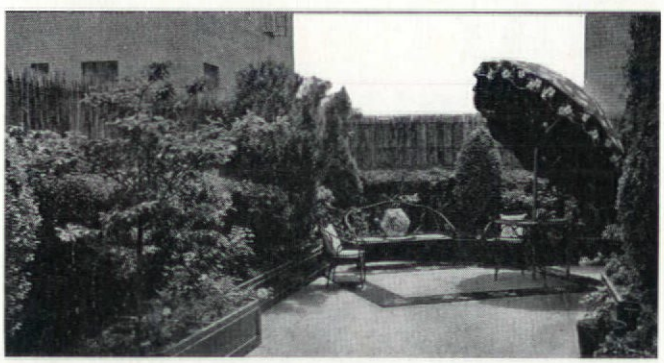
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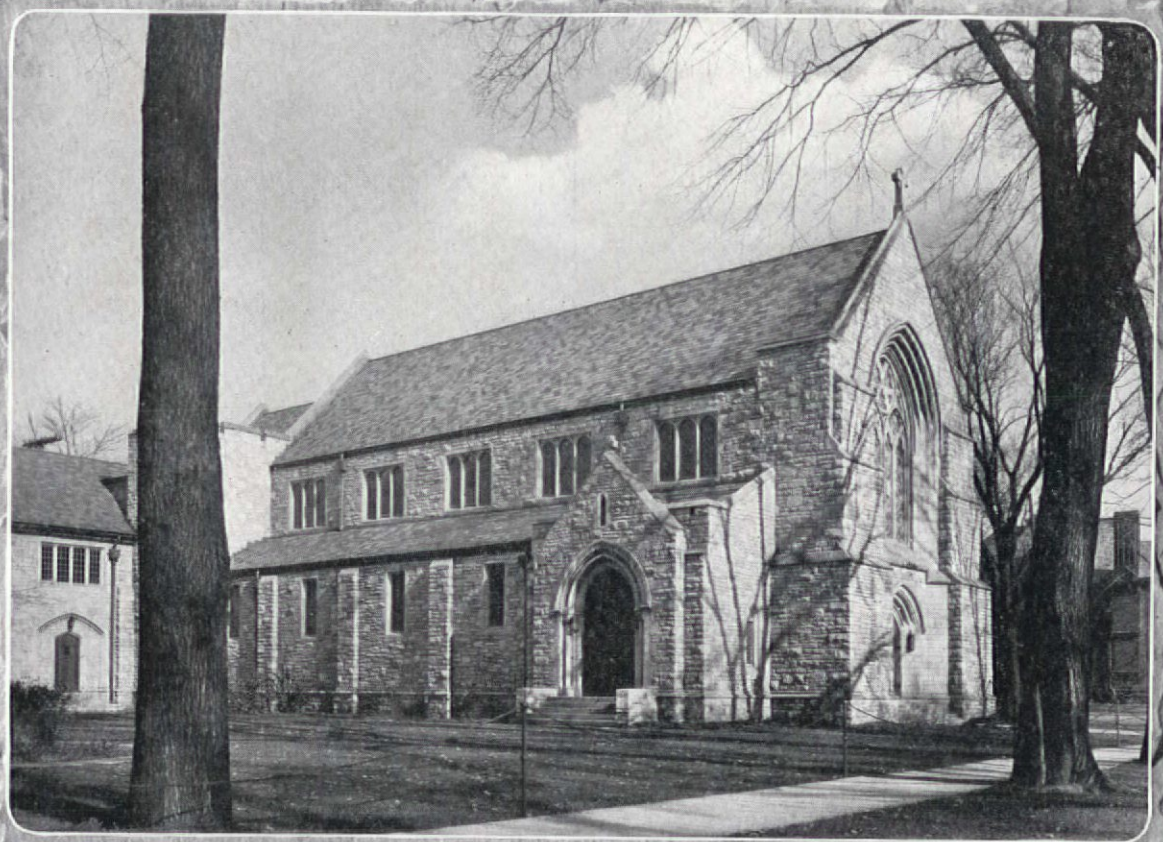
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First Presbyterian Church
Clinton, Iowa

Coolidge & Hodgdon
Architects

Perfect Harmony

One of the most attractive features of this church is its harmoniously designed roof of color blend slate ⁂ It is interesting to note that in 1929 this church was awarded the Second Prize in the *Christian Herald* annual church contest.

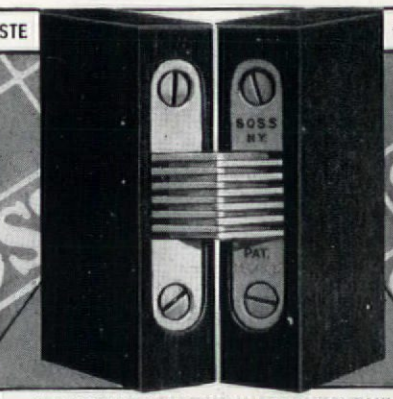
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There is a Soss Invisible Hinge for every purpose. See our line in Sweet's Catalogue "D" or write direct to us for our own complete catalogue.

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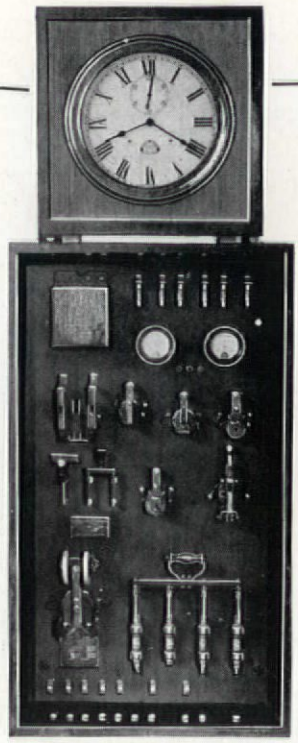


ILLUSTRATION shows Type AEG Emergency Lighting System Control Panel, mounted in steel cabinet with Electric Self Winding Clock for supervision and control of charge of storage battery, which is one of the many Landis features.

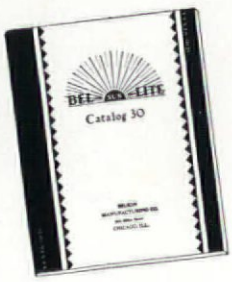
Complete specifications for Emergency Lighting equipment will be found in Sweet's Architectural Catalogues, Volume D, pages 5428 and 5429.

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Catalog 30

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Thermostatic
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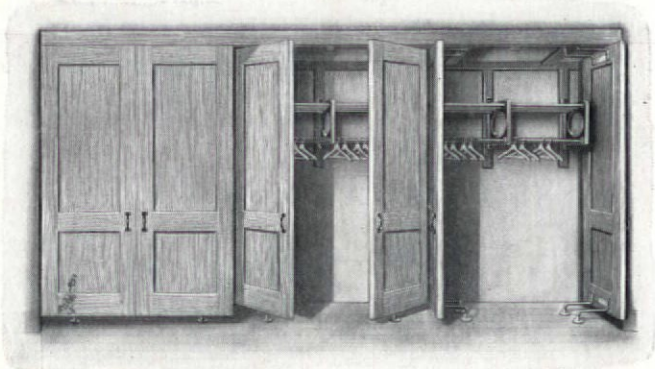


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Catalog C of Leonard Valves, showing Art Line and Colors to match bathroom fixtures, is now ready.

Write for your copy.

LEONARD-ROOKE COMPANY
Elmwood Station Providence, R. I.



Evans "Vanishing Door" Wardrobe Class A-A, without jambs or trim

HERE is an ideal school class-room wardrobe, low in cost yet meeting every demand of the most exacting. This wardrobe is made for plaster ends, backs, and ceilings; no jambs nor trim being required. When so desired blackboards can be furnished for the doors, giving a continuous blackboard surface.

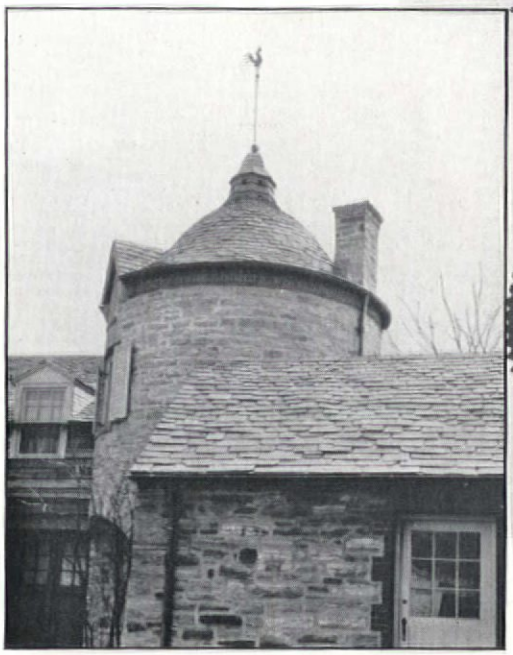
The "Vanishing Door" hinges on which the doors are hung are made with double pivoted arms and swing the doors back into the wardrobe entirely out of the way. There are no noisy tracks nor rollers to stick or bind, nor intricate mechanism to get out of order. These hinges are guaranteed to last as long as the building.

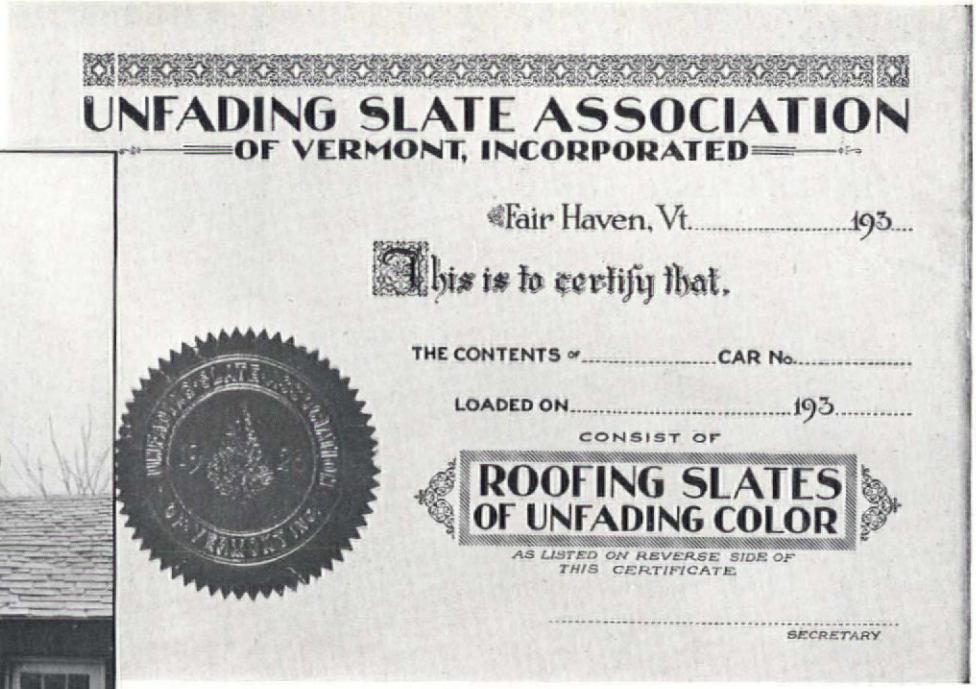
All wardrobes are furnished complete in the knockdown, with all woodwork cut to size, and only need to be secured in place. The hinges are easier to put on than common butt hinges. The entire cost of installation is small.

Many types of school wardrobes are fully illustrated, described and detailed in Catalog "K". This catalog is of A. I. A. file size and can be had for the asking.

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Above—reproduction of the certificate issued by the Unfading Slate Association of Vermont, Inc., which is your guarantee that the shipment is 100% unfading slate.

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Represented in Sweet's Architectural Catalogues, Volume B, Page 1737

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for Every Type of Surface...
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It makes for convenience and economy to standardize on Dutch Boy White Lead in your painting.



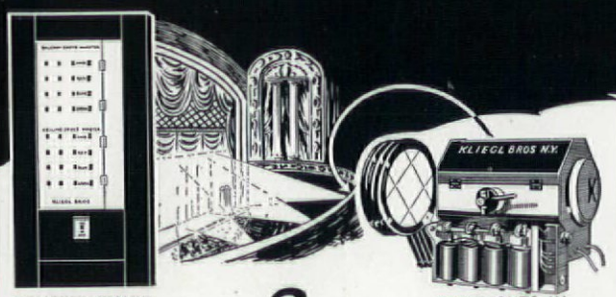


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New York, 111 Broadway; Buffalo, 116 Oak St.; Chicago, 900 W. 18th St.; Cincinnati, 659 Freeman Ave.; Cleveland, 820 W. Superior Ave.; St. Louis, 722 Chestnut St.; San Francisco, 2240-24 St.; Boston, National-Boston Lead Co., 800 Albany St.; Pittsburgh, National Lead & Oil Co. of Pa., 316 Fourth Ave.; Philadelphia, John T. Lewis & Bros. Co., Widener Building.

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BALCONY SPOTLIGHTS
with Remote Control Color Frames



CONTROL BOARD BACKSTAGE

SPOTLIGHTS IN BALCONY RAIL

EQUIPPED with an electro magnetic device which permits their complete and entire operation, including the control of four or more color frames, to be accomplished from a remote point. It is now possible to install a single group of spotlights that will give all the color variations obtained with several groups heretofore; or install the same number of spotlights, obtaining four or five times as much light for each color.

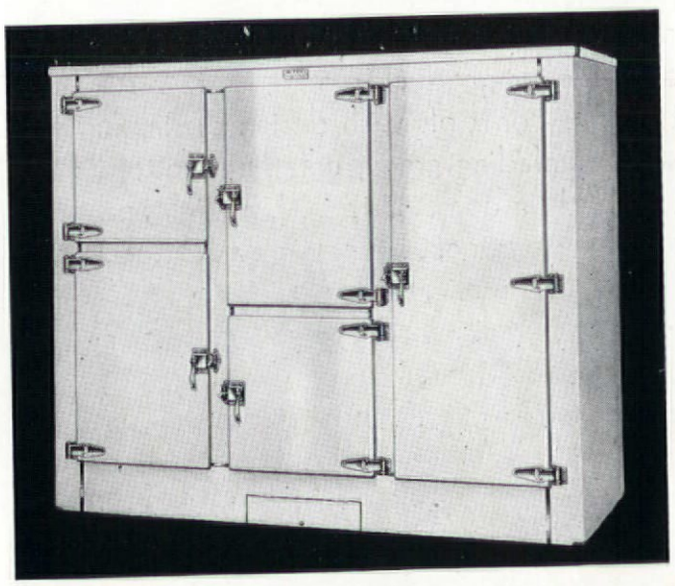
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in this tall banking and office building, consisting principally of columns, beams, trusses, and miscellaneous members was produced by

AMERICAN BRIDGE COMPANY

Subsidiary of United States Steel Corporation

Manufacturers of All Kinds of

STEEL STRUCTURES

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NOTES IN BRIEF

and

Architects' Announcements

CALENDAR OF EVENTS
GENERAL ANNOUNCEMENTS

August	"Man and Machines," an exhibit representing western industrial civilization, at Museums of the Peaceful Arts, 220 East 42nd Street, New York City.
August, September	Exhibition of modern Architecture and Industrial Arts at Stockholm, Sweden.
August	The German *Werkbund* Exhibition at the Grand Palais in Paris. Exhibition of modern furniture, steel apartment house layouts, new construction, arranged by Prof. Walter Gropius of Berlin.
August-October	International Hygienic Exhibition at Dresden, Germany. Buildings include a model hospital and a model housing project.
Aug. 4-9	International Exposition of American Import Trade, Grand Central Palace, New York.
Aug. 12-21	Study Tour of the International Housing Association in Denmark, Sweden and Norway.
Sept. 7-14	Twelfth International Congress of Architects, Budapest, Hungary.
Sept. 8-13	A course of lectures on *Fundamentals of Architecture* for members of Illuminating Engineering Society, conducted by the School of Architecture, Columbia University, N. Y.
Oct. 1	The Committee of Twenty on Street and Outdoor Cleanliness, 2 East 103rd Street, New York City, have extended their prize contest for the design of a Litter Basket for New York City till October 1. First Prize $500.
October	The Department of Architecture of the University of New York will begin a series of lectures on "Promoting and Financing Building Projects."
Oct. 7-10	Annual convention of the Illuminating Engineering Society. Hotel John Marshall, Richmond, Va.
Oct. 8-12	Sixth National Conference of Church Architecture, Cleveland, Ohio.
Nov. 18-29	Art Exhibition, Royal Institute of British Architects, London (9, Conduit Street).
1930	Entries in the competition for the most beautiful bridge in North America are invited. Information can be had from F. H. Frankland, c/o Bridge Committee, American Institute of Steel Construction, Inc., 200 Madison Ave., New York City.

COLIN J. ROBB, architect, Timpany House, Ballynahinch, Co. Down, Ireland, desires to get in touch with manufacturers who are makers of church bells, lightning rods, theatrical lighting apparatus, hospital fittings, stable and kennel fittings, church metal work, stained glass, general cinema and theatrical fittings, church and cinema organs.

MILTON M. FRIEDMAN, architect, announces the removal of his offices to Suite 635 Rives-Strong Building, 112 West Ninth Street, Los Angeles, Calif.

DAVID ELMS GRAHAM CO., architect and engineer, formerly located at 3107 Beverly Boulevard, Los Angeles, has moved to 1144 South Grand Avenue, Los Angeles.

FREDERICK S. STOTT, architect, announces a change of address from c/o Marsh, Smith & Powell, Architects' Building, Los Angeles, Calif., to 1180 Oak Grove Drive, Los Angeles, Calif.

VAN WART AND WEIN, architects, announce the removal of their office to larger quarters in the building where they are located at present, 347 Madison Avenue, New York City. New samples and up-to-date catalogues are requested.

CARL E. HOWELL

Word was received June 17, 1930, of the death at Monrovia, Calif., of Carl E. Howell of the firm of Howell & Thomas, architects. Mr. Howell had been in failing health for more than two years and had given up active work in Cleveland for the climate of New Mexico and California. He had been in California only two months.

Mr. Howell was born in Columbus in 1879, educated at Ohio State University and at the University of Pennsylvania. While at Pennsylvania, he won several scholarships. He was also awarded the John Stewardson foreign traveling scholarship in architecture and after his return entered practice with J. W. Thomas in Columbus in 1908. He was a member of the American Institute of Architects and the American Academy of Rome.

The work of Howell and Thomas includes the library and auditorium buildings for Ohio University at Athens, Ohio; East High School of Columbus, Ohio; high schools in Lakewood and Shaker Heights, Ohio; churches at Columbus, Canton and Oxford, Ohio; Y. W. C. A. buildings at Cleveland and Zanesville. They have also specialized in the planning and designing of newspaper buildings.

"Man and Machines," an exhibit of discoveries, inventions and mechanical devices depicting the rise of western industrial civilization, will be opened this month at the Museums of the Peaceful Arts, 220 East Forty-second Street, New York City.

One hundred industrial firms and individuals have been engaged for the last five months in preparing the exhibit. It will demonstrate the changes in economic and social life caused by the industrial revolution from the earliest times to the present. The exhibit is patterned after the one in the Deutsches Museum, Munich, which is visited each year by more than 1,000,000 persons. The collection will be strictly American.

FOREIGN TRAVEL

Eight European nations will be visited by students of the School of Architecture of the University of Southern California, who will go on the annual "vagabond" summer tour. The trip will be conducted under the direction of Dean Arthur C. Weatherhead and Prof. C. Raimond Johnson of the architectural faculty.

The latest trend in modern architecture will be studied by the students in various cities and countries, emphasis being placed on American work as contrasted with that of other nations.

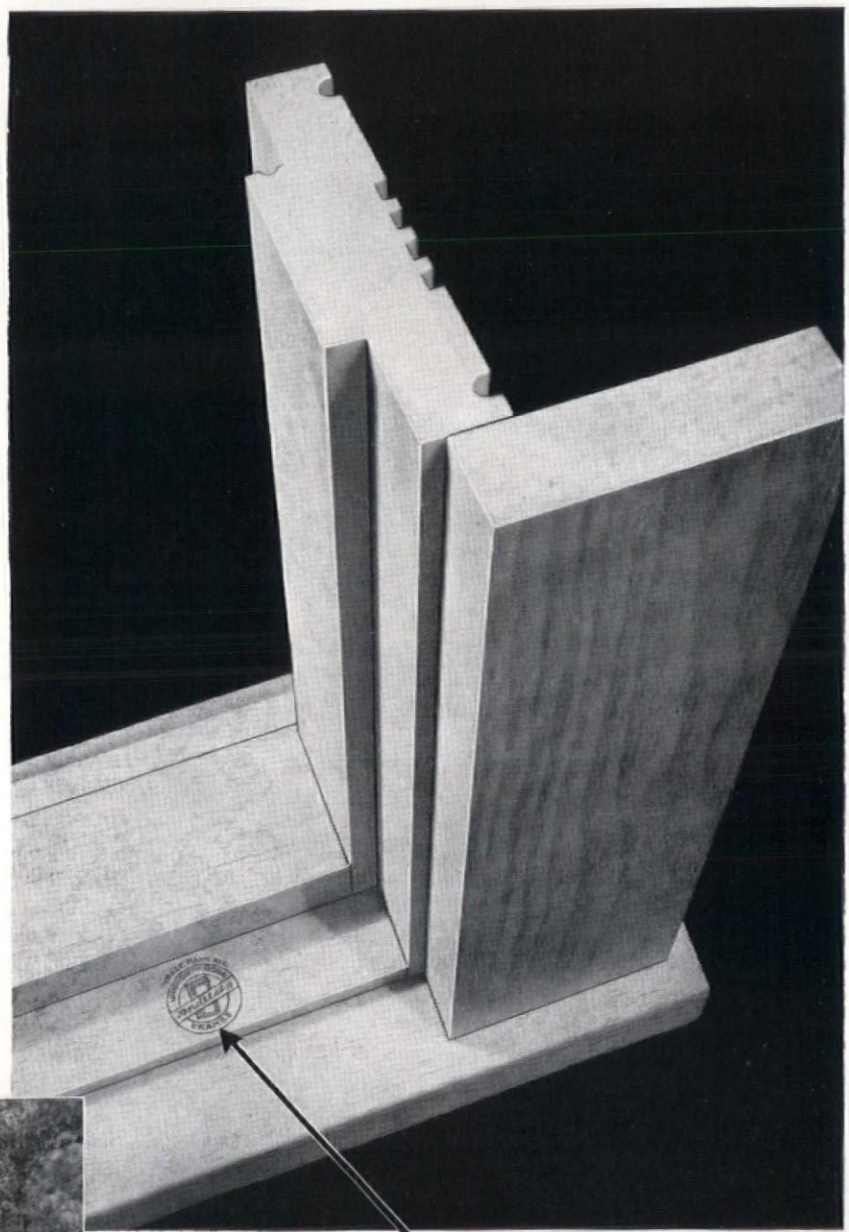
Real Casement Beauty Captured in new Andersen Master Frame with locked sill-joint . . . . .

TRUE casement beauty, absolute accuracy of construction and finest quality genuine white pine—these are features of the new Andersen Master Frame with locked sill-joint.

This casement is made in 640 sizes, to fit your most rigid specifications.

Architects are using Andersen Master Frames today because, by actual test, they are superior to custom made frames.

Write for your copy of Andersen Catalog No. 500. Andersen Frame Corporation, Bayport, Minnesota, represented by 3,500 leading jobbers and dealers.





MASTER WINDOW and DOOR Andersen FRAMES

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FOR WEATHERTIGHT INSTALLATIONS — USE ANDERSEN SPECIFICATIONS

PARIS PRIZE

Announcement is made of the award of the 23rd Paris Prize in Architecture to L. B. Anderson, Massachusetts Institute of Technology.

The other competitors were:

George Brennan, Massachusetts Institute of Technology, placed second.

R. A. Weppner, Catholic University, placed third.

C. C. Braun, University of Illinois, placed fourth.

E. T. Pairo, Catholic University, placed fifth.

This prize has a stipend of $3,600. It is a national competition open to all citizens of the United States under 27 years of age, and enables the winner to study abroad for two and one-half years. It also carries the privilege of admission to the first class at the Ecole des Beaux-Arts in Paris without entrance examinations by a decree of the Minister of Public Instruction and Fine Arts of France.

The competition consists of three progressive eliminatory competitions. The first competition required a completely rendered drawing in twelve consecutive hours for a "Peace Memorial"; the second, of 24 hours' duration, required a rendered plan for "A Municipal Playground and Athletic Center for a Town of Moderate Size"; and the final competition required a sketch in 36 hours, of a solution for the problem "National School of Fine Arts." The competitors in the final stage were given ten weeks to develop and execute the drawings for their original sketched solution.

A CORRECTION

In the May issue photographs were shown of the Fox Theatre, Atlanta, Ga., and the work incorrectly attributed to John Eberson, architect. Marye, Alyn and Vinour were the architects for the project.

MODEL HOMES FOR PHILIPPINE SOLDIERS

In order to improve the housing conditions of the native soldiers under his command and to enable the post doctors to exercise direct medical and sanitary supervision over their living conditions, General Frank C. Bolles has started the erection of a "model barrio" on the post, the aim of which is to insure maximum comfort and health for the soldier and his family and to bring them into contact with modern methods of sanitation. Another object is to give an example of proper living conditions to other Filipinos. The houses which are being erected, although cheap, are well built, will not require constant repair, and are arranged so that the health conditions of the native soldier and his family will be improved in the hope of stamping out disease. Each soldier occupying quarters with his family pays a monthly rent of two pesos ($1.00), and in addition works one afternoon a week as his contribution to the barrio. All money received goes to the barrio fund which is used for the betterment of the barrio.

The houses are arranged in blocks of four double houses to the block. Each dwelling is built off the ground on wooden posts set in concrete blocks. The house is twenty-eight feet long and twenty-four feet wide. It has a porch in front six feet wide and a kitchen in back of the same width. The middle room, which may be partitioned to form two rooms, is sixteen feet by twelve feet. The frame of the house is wood, the side walls are sawali, and the dividing wall is of wood. The roof is of galvanized iron. When finished the houses are painted green with white trimmings. In the middle of every block there is a community bath built of concrete with galvanized iron roof and walls, containing four toilets, two showers, and a platform for washing clothes. This model village also enjoys the benefit of an incinerator as an additional help toward improved sanitation.

The recreation block is in the middle of the barrio. The center of this block is a public park and surrounding it will be the church, the school and the store. Six hundred families will eventually be housed in this barrio.

FIRE-RESISTING CONSTRUCTION

The report of the Building Code Committee, organized by The Merchants' Association to draft a new Building Code for the City of New York, embodies a proposed new code governing the use of fire-resistive materials.

It is contemplated that when the whole new building code is completed, it will make provision for a new type of construction to be known as the partially protected or intermediate type, which, while not as resistive to fire as the present fireproof construction, will eliminate the hazards existing today in non-fireproof six-story apartments. This will be accomplished by using a lighter steel frame, a thin slab, wire lath and plaster partition and increasing the allowable height of the fire retarded building above the six stories allowed to non-fireproof structures today, to offset to some extent the increased cost.

TRAFFIC CONGESTION

Dr. John A. Harriss, president of the Broadway Association and national traffic expert, in speaking on the rapid growth of the automobile in the past fifteen years, declares that there are 29,000,000 automobiles in the United States and Canada and that $1,000,000 a working day is lost by street congestion in New York. This is about $300,000,000 a year, based on time lost by those who are compelled to use the thoroughfares.

"What does this mean in the future? If we continue to build office skyscrapers, big apartment houses or construction operations that go up 10 or 15 stories, and do not provide adequate means of taking care of the street traffic then we must either close up the city or eliminate the automobile. At the present time 4,800,000 persons over seven years of age use the streets daily.

"The solution in my opinion lies in erecting multiple highways on say Ninth and Second or Third avenues from six to twelve decks or levels in height. These would extend from the lower end of the city to the upper end and would be approached by ramps at various points along the line with corresponding ramps for means of exit.

"These levels would provide one-way thoroughfares for various classes of vehicles. At the lowest levels there would be two avenues for trucks, then, as we ascend, two for buses, two for taxis, two for pleasure cars, two for storage and parking, and two for fire apparatus and other emergency use, each class having separate boulevards for northbound and for southbound travel. Six, of these levels could be put in operation as a starter on both sides of the city."

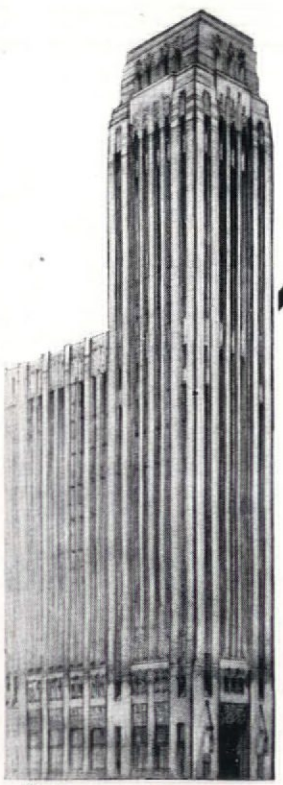
The Dunham Differential Vacuum Heating System

From NEW YORK to SAN FRANCISCO



19 Rector Street Building
New York City
Owners:
Gening Realty Corp.
Architect:
Lafayette A. Goldstone
Herbert Lau and
Hugh C. Porter,
Associates
Consulting Engineers:
Jaros & Baum
Builders:
Gresham Construction Co., Incorporated
Heating Contractor:
Raisler Heating Co.

Over 800 installations of the Dunham Differential Heating System in both new and existing buildings of all types show that fuel savings of from 25% to 40% are uniformly obtained.



SAN FRANCISCO

Pacific National Bank Building
San Francisco, Calif.
Architect.
W. D. Peugh
Heating Contractor:
Jas. A. Nelson, Inc.

OWNERS of big properties on both coasts and many others in between have selected Dunham Differential Heating as a sound equipment investment based on proved records of uniform, comfortable heating *plus* economy that cuts 25 to 40% off the fuel bills.

NEW YORK

Find out about Differential Heating advantages as applied to your properties. Many existing heating plants can easily be converted to Differential operation. The fuel savings will pay for the change.

C. A. DUNHAM CO.

Dunham Building

450 East Ohio Street Chicago, Illinois

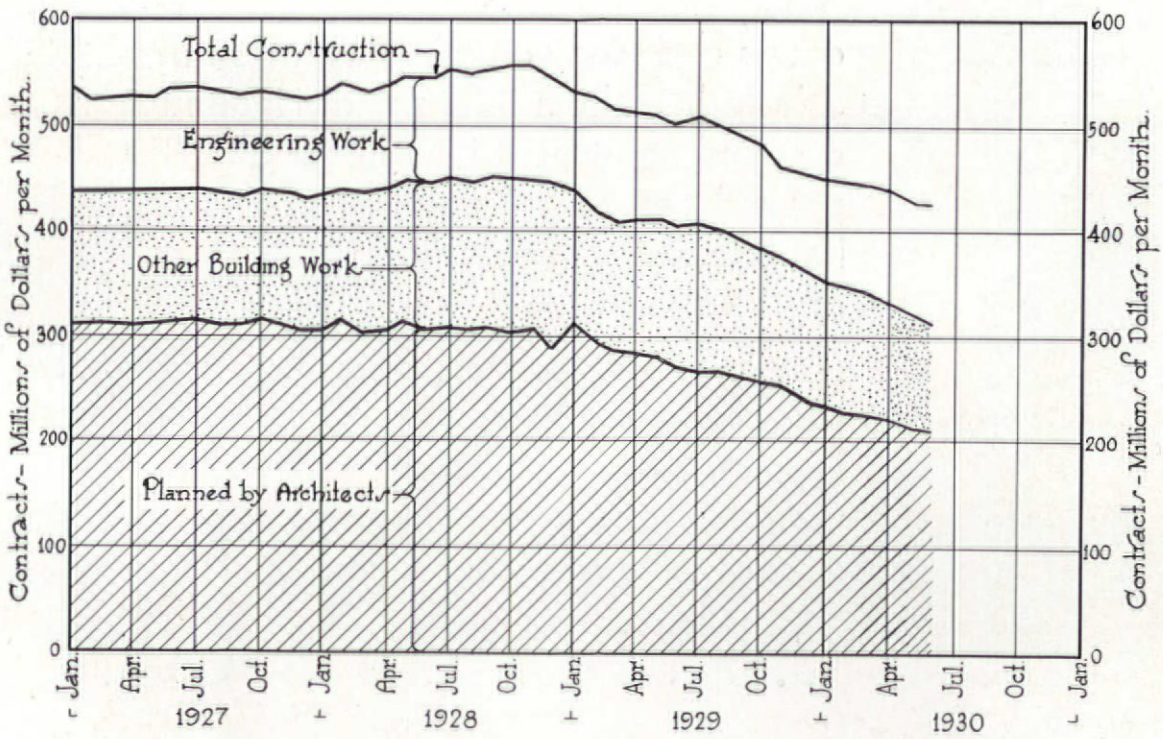
Over 80 branch offices in the United States and Canada bring Dunham Service as close to you as your telephone. Consult your local directory. Dunham engineers are at your service with complete and authoritative data on improved heating to meet your individual requirements.

CONSTRUCTION STATISTICS

From the records of F. W. DODGE CORPORATION, Statistical Division. The figures cover the 37 states east of the Rocky Mountains and represent about 91 per cent. of the country's construction volume. They include projects amounting to $5,000 and up.

First Half, 1930

	TOTAL CONTRACTS		WORK PLANNED BY ARCHITECTS		
	Number of Projects	Valuation	Number of Projects	Valuation	Per Cent. of Total
Commercial Buildings	12,243	$409,618,300	4,666	$327,116,900	80
Industrial Buildings	2,800	323,403,600	935	86,098,200	27
Educational Buildings	2,338	196,563,400	1,905	189,524,100	96
Hospitals & Institutions	589	95,224,200	453	87,631,000	92
Public Buildings	689	62,322,300	430	50,574,100	81
Religious & Memorial Buildings	1,054	56,224,900	742	52,366,100	93
Social & Recreational Projects	1,317	66,505,300	808	58,013,600	87
Apartments & Hotels	2,858	196,445,000	1,606	165,986,000	84
One & Two Family Houses	36,952	382,967,600	9,025	172,712,500	45
Total Building	60,840	$1,789,274,600	20,570	$1,190,022,500	67
Public Works & Utilities	10,104	848,738,700	138	21,936,800	3
Total Construction	70,944	$2,638,013,300	20,708	$1,211,959,300	46
Total Construction, 1st half, 1929	92,395	$3,015,546,800	27,037	$1,536,834,500	51



General Trend of Building and Engineering Construction

CONTRASTS IN INDUSTRIAL PROGRESS





A one camel-power pump in Morocco

Perfectly content to spend his life traveling an inexorable circle, the camel here typifies the country which supports him. The centuries have left no mark mechanically on the sandy wastes known as Morocco, the land of desert warfare and religious fervor.

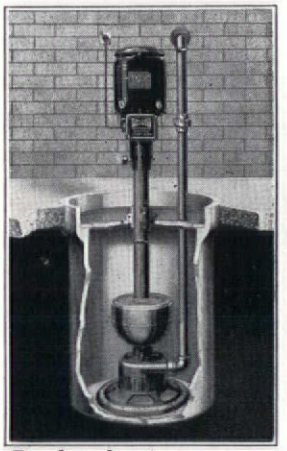
Water is elevated in the chain of earthen pots operated by the crude wooden device that is perhaps best described as a forerunner of a pair of bevel gears. Contrast this with the simple and efficient pumps we use today—equipment like the Penberthy Automatic Electric Sump Pump and Cellar Drainer, which are thoroughly automatic, fully dependable and have low operating costs.

Here indeed are the opposite ends of the march of progress.

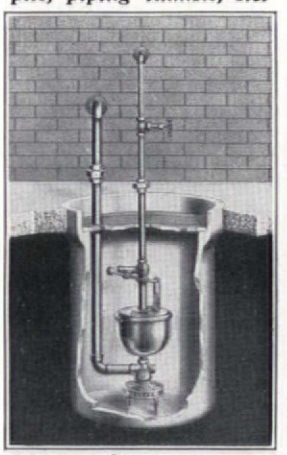
PENBERTHY INJECTOR COMPANY

ESTABLISHED IN 1886 — DETROIT — CANADIAN PLANT WINDSOR, ONT.

PENBERTHY PRODUCTS



Penberthy Automatic Electric Sump Pumps and Hydraulic Cellar Drainers for draining seepage water from basements, elevator pits, piping tunnels, etc.



Many architects are specifying these pumps to the complete satisfaction of their clients. Penberthy Pumps are quickly obtainable from practically all leading jobbers.

El Dorado Towers, 300 Central Park West, New York City, Margon & Holder, Architects, Elkay Builders Corp., Builders.



•

WHY

MODERN APARTMENT BUILDINGS

are now being equipped with

•RCA•

CENTRALIZED RADIO

Antenna and ground outlets in all apartments

High-class apartment construction of today has definitely eliminated unsightly antennae on the roof... and demanded the installation of the antenna distribution type of RCA Centralized Radio.

Scores of modern apartment buildings now include this new RCA system of providing multiple radio outlets connected with a centralized antenna.

In this way, radio reception is improved and any number of tenants are now able to plug in their sets at convenient outlets and tune in their favorite stations in the usual manner.

RCA Centralized Radio equipment has been approved by the National Board of Fire Underwriters. Each and every item has been especially designed and developed by RCA engineers for Centralized Radio use, as *adapted* equipment has not been found suitable for the purpose.

For Hotels, Hospitals, Schools . . .

RCA Centralized Radio Equipment is also designed for hotels, hospitals, sanitariums, schools, passenger ships, etc., where transient occupants of rooms may enjoy radio programs or phonograph record entertainment from loudspeakers or headsets, all operated from a central control.

The Engineering Products Division, RCA Victor Company, Inc., will answer inquiries and prepare plans and estimates for installations of any size.

ENGINEERING PRODUCTS DIVISION, SECTION A

RCA VICTOR COMPANY, INC.

233 Broadway, New York, N. Y.

See the permanent RCA Centralized Radio Exhibit at the RCA-Victor Show now at Atlantic City.

A REVIEW OF CATALOGUES

BATHROOM ACCESSORIES

"All Tile" bathroom accessories to match the surrounding wall tile. Combination fixtures for hotels and apartments; special designs for the modern bathroom. Particulars of size, finish and style. The Mosaic Tile Company, Zanesville, Ohio. 8½ x 11 in. 8 pp. Ill.

TILE, CLAY

Natco double shell load bearing tile, for stuccoed exterior walls or brick and stone faced walls. Table of mortar required for 100 sq. ft. of wall. Detail drawings. 6 pp. folder. 8½ x 11 in. Ill. Also, 4-page folder on Unibacker tile, for load bearing curtain and closure walls. National Fireproofing Corporation, Fulton Bldg., Pittsburgh, Pa.

BUSS-WA

Copper bar system for power and light distribution. Description of Buss-Wa units. Installation cost. Provisions and requirements. Actual installations. Typical riser diagram and wiring schedule. Special uses in various important fields. Advantages. The Trumbull Electric Mfg. Co., Plainville, Conn. 8½ x 11 in. 16 pp. Ill.

SHINGLES, STAINED

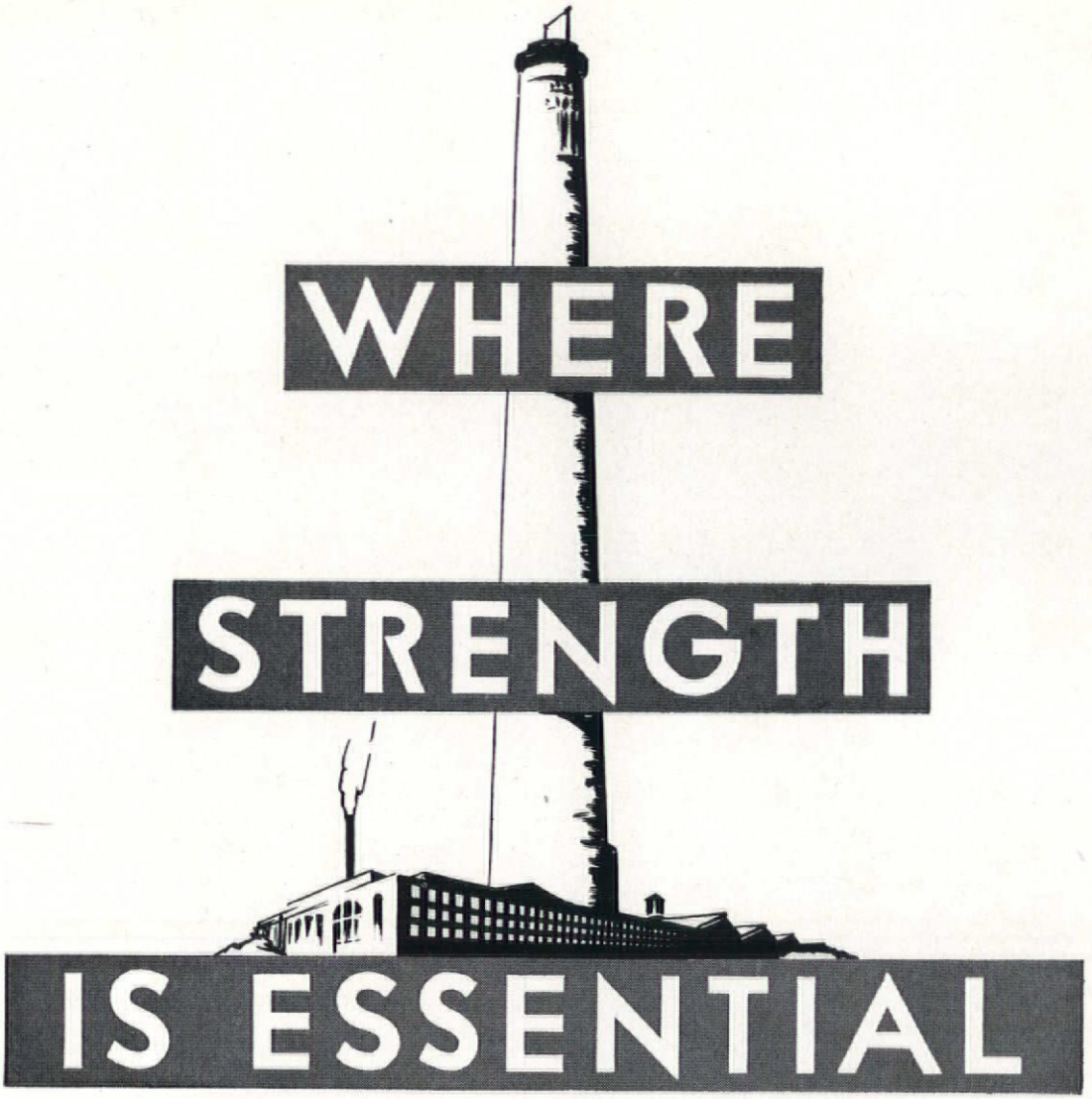
"Cabot's Creosote Stained Shingles." The picturesqueness and economy of shingles. Approximate comparative costs of wall and roof construction. Wear resistance and covering capacity of wooden shingles. Fire resistance. Cabot's "Anteaks", white stained, old Virginia white, double-white and 42-year-old roof shingles. Heat-insulating and sound-deadening quilt. Collopakes. Specification. 8½ x 11 in. 16 pp. Ill. Also booklet on Cabot's Creosote Shingle and Wood Stains. Uses and directions for application. 3½ x 6 in. 16 pp. Ill. Folder on Cabot's creosote shingle and wood stains. Actual samples. Uses; applications; covering capacity. Samuel Cabot, Inc., 141 Milk St., Boston, Mass.

TERRA COTTA

Wall units of Atlantic terra cotta. Suitability for interior walls; economy; dimensions and description. Modeled wall units. Uses and supplementary uses. Colors; design. Durability and maintenance. Price. Specifications for the manufacture, furnishing and setting of Atlantic wall units. Detail drawings of various types. Detail drawings of types used in typical installations, including American Museum of Natural History, New York; Waldorf-Astoria Hotel, New York; Brooklyn State Hospital, L. I., New York. Atlantic Terra Cotta Co., 19 West 44th Street, New York City. 8½ x 11¼ in. 112 pp. (Loose-leaf.) Ill.

WOOD PRESERVATIVE

Tri-Treat, a wood preservative developed for E. L. Bruce Company by Dr. James W. Lawrie and Associates, Milwaukee, Wis. Prevents attack by termites and rot fungi. Technical report giving facts on Tri-Treat and the Tri-Treating process. Characteristics; tests. Where to use in sheltered and exposed construction. E. L. Bruce Co., Memphis, Tenn. 8½ x 11 in. 16 pp. Ill.



WHEN tested in piers, Brixment mortar approaches straight 3-to-1 portland cement mortar in strength.

And since Brixment is more plastic, is ground finer and hardens more slowly, it insures a better bond and more thorough bedding of the brick.

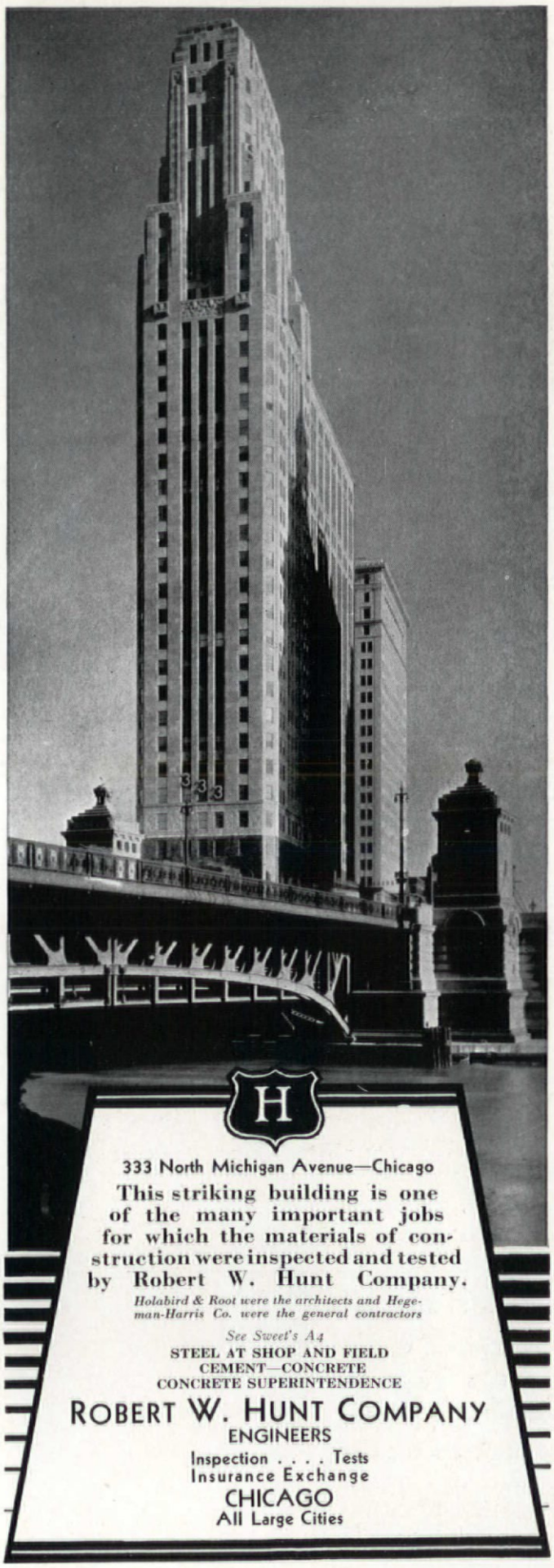
Ideal for foundation, load-bearing or parapet walls and even for tall, free-standing stacks. Louisville Cement Company, Incorporated, Louisville, Kentucky.

CEMENT MANUFACTURERS SINCE 1830

BRIXMENT

For MASONRY and STUCCO





A REVIEW OF CATALOGUES—Continued

PUMPS

Centrifugal pump selection chart bulletin No. 201. Multi-stage pumps for capacities up to 2000 G.P.M. and heads up to 2400 feet. Complete description, including cross sections with details and dimensions for each pump. Specifications. Features of design and construction. Typical installations. Goulds Pumps, Inc., Seneca Falls, N. Y. 8½ x 11 in. 32 pp. Ill.

STOVES

Chromium finish custom built ranges for fine homes. Blue-prints offered of gas ranges originated to fit special dimensions. Typical examples with particulars regarding ovens, dimensions, cooking surface, equipment and finish. Blue-prints and specifications. Typical installations. American Stove Company, 925 Chouteau Avenue, St. Louis, Mo. 8½ x 11 in. 24 pp. Ill.

PARTITIONS

"Office Planning Studies." Plans for single desk offices and two-desk offices. Swing and location of doors and types of doors. Access to corner offices. Half, full, one and one-half and two-bay units. Wing space, the center island and open center plans. The inside corner unit. Lighting arrangements. Ventilation. 8⅝ x 11¼ in. 40 pp. Ill. Also, "Hauserman Movable Partitions, Types T & R." Special features and advantages. Standard details. Full information. The E. F. Hauserman Company, 6805 Grant Avenue, Cleveland, Ohio. 8½ x 11 in. 8 pp. Ill.

WINDOWS, STEEL

"Your Windows Through a Decorator's Eye." Color schemes and furnishings for living room, library, dining room, breakfast nook, sun porch, bedroom, child's room, bathroom, kitchen. Color chart. The windows and their drapery. Metal screens, storm windows and drapery brackets. Shade and drapery fixtures for Lupton casements. Casement doors. David Lupton's Sons Company, Allegheny Ave. and Tulip St., Philadelphia, Pa. 6½ x 9¼ in. 24 pp. Ill.

METAL DOORS AND TRIM

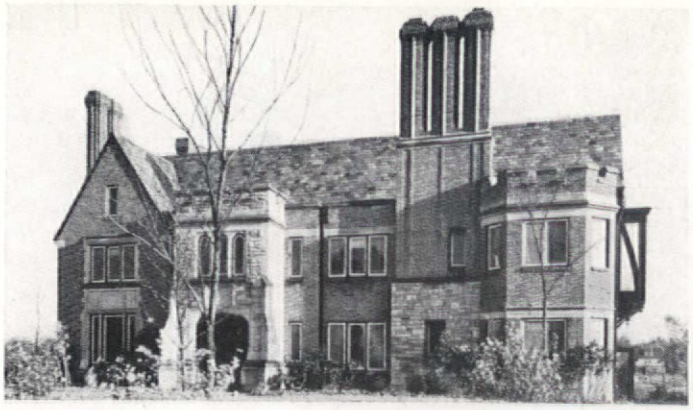
Dahlstrom Metallic Door Company graphically illustrate their 25 years' growth and progress in the manufacture of metal doors, trim, partitions, etc., in 10 pages of very detailed information.

The catalogue also contains extremely valuable information in regard to elevator hatch doors and enclosure details. Stock patterns of all products are profusely illustrated and described by number for convenience in selecting and specifying. 10 pp. Dahlstrom Metallic Door Company, Jamestown, N. Y. (This catalogue is in Sweet's for 1930.)

SOLID METAL WINDOWS AND METAL DOORS

Thirty-one pages tell the catalogue story of the Federal Steel Sash Company regarding their solid metal windows and metal doors. Among the many types shown, are to be found, particularly featured, their commercial and architectural projected windows. Pivoted and hinged windows of small dimensions and large ones requiring hand and power operating devices are illustrated. Four pages are devoted to industrial doors. 31 pp. Federal Steel Sash Co., Waukesha, Wis. (This catalogue is in Sweet's for 1930.)

(Continued on page 164)



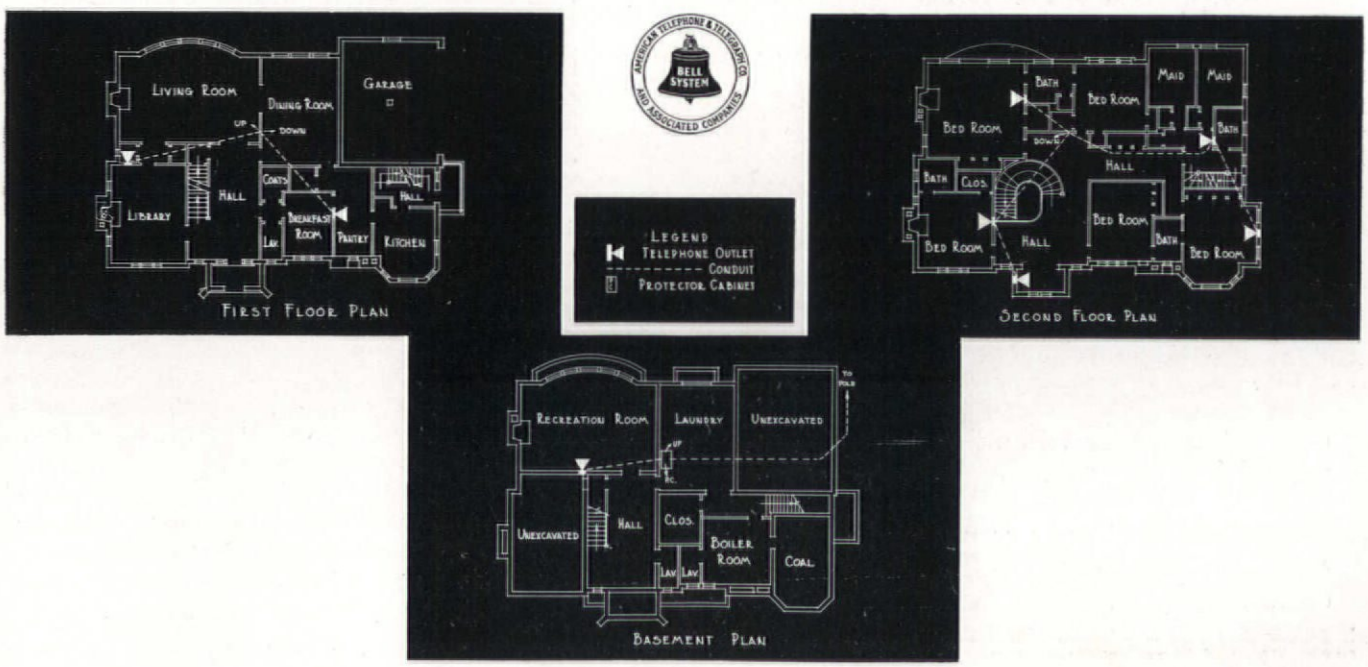
In the residence of Mr. Percy N. Calvert, 18040 South Woodland Road, Shaker Heights, Cleveland, Ohio, eight telephone outlets provide for modern telephone convenience. Here the telephone wiring is carried in conduit built into the walls and floors. MONROE E. DEANE, Architect. THE H. W. BROWN & SON COMPANY, Builders, *Cleveland.*

Flexibility is always Desirable in the Telephone arrangements of a Residence

IN PLANNING for the telephone arrangements of the houses they design, many architects include provision for more telephone outlets than the home owner may immediately require. This foresight insures a flexibility of service that often proves very desirable. When a residence is first occupied, telephones are needed in certain rooms. A change in the use of these or other rooms may involve the shifting of the telephone arrangements, and with outlets available at convenient locations, this rearrangement or expansion is easily accomplished.

Appropriate locations for telephone outlets can be determined in conjunction with the home owner, the architect and a representative of the local Bell Company. Conduit for the telephone wiring is then specified, and built into the walls and floors during construction. This results in improved appearance, and guards against certain types of service interruptions.

You and your clients are most cordially invited to consult with representatives of the local Bell Company in planning for the telephone arrangements for new and remodeled houses. No charge is made. Just call the Business Office.



Insulate with

U. S. MINERAL WOOL

• COLD-PROOF • HEAT-PROOF •

FIRE-PROOF • SOUND-PROOF • VERMIN-PROOF



Cooler Rooms During Summer Heat

THE insulation of your home with U. S. Mineral Wool is an assurance of greater summer comfort.

All rooms, even attic rooms, are many degrees cooler in summer, if protected with this all-mineral, indestructible and vermin-proof material. Placed in the walls and rafters and between floors of a house, U. S. Mineral Wool forms a protective shield through which torrid summer heat or frigid winter cold cannot penetrate. Insulation is a year-round comfort provider and a decided money saver.

Winter fuel bills are decreased about one third and this annual saving steadily continues as Mineral Wool once installed will outlast the building.

Send coupon for free sample and illustrated booklet.

U. S. Mineral Wool Company

280 Madison Avenue, New York

Western Connection:

Columbia Mineral Wool Co., S. Milwaukee, Wis.

U. S. MINERAL WOOL CO., DEPT. E
280 Madision Ave., New York
Send FREE sample and illustrated booklet to

Name.....

Address.....

City.....State.....

A REVIEW OF CATALOGUES—Continued

REFRIGERATORS

All steel electric refrigerators for domestic, commercial, institutional and other installations are shown in great variety by the General Electric Company in ten pages. Very full description is given of all working parts and the principles of refrigeration and operation. Many illustrations are used to show various models and types. Full dimensions are given. Plans and suggestions are presented to illustrate the advantageous location of refrigerators. 10 pp. General Electric Company, Cleveland, Ohio. (This catalogue is in Sweet's for 1930.)

"MOVING FACTORS"

How a growing need is met for means to readily move and operate heavy and unwieldy things which must be moved in buildings, such as large doors, partitions, gates, portable walls, etc., is told by Allen & Drew in 34 pages. Solutions of problems in mobility are given not only for the usual and familiar requirements but for new and progressive purposes which distinctly aid the architect to plan the use of space with an economy and efficiency not hitherto thought possible. The electric motors and accessory devices to be used are explained for a large variety of typical cases and details of installation are shown. A perusal of this catalogue will suggest that a "fourth dimension" in building construction has been discovered. "Open Sesame" is the thought colorfully pictured on the catalogue cover and the text justifies the idea. 34 pp. Allen & Drew, 43-45 Brookford Street, Cambridge, Mass. (This catalogue is in Sweet's for 1930.)



Heating and Ventilating Units



YOU can specify PeerVent Units with complete confidence. They are positively silent in operation, highly efficient, and dependable. Peerless Units built *eighteen years ago* are still giving perfect satisfaction. The latest PeerVent is improved throughout—better radiator, better motor, better fans, and better controls.

PEERLESS UNIT VENTILATION CO., INC.

Pioneers in Unit Ventilation

Bridgeport, Connecticut

Selling Agents in Principal Cities from Coast to Coast

"Say, Lad —

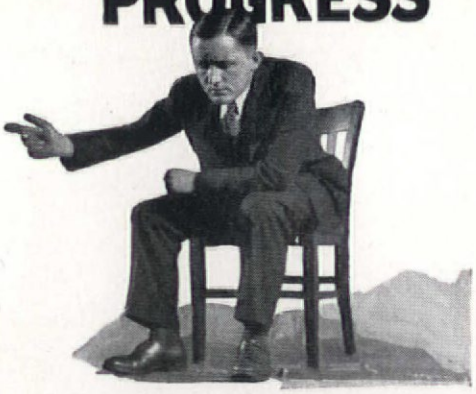
This friend of yours, 'Arc Welding' of whom you're always shouting. Why is it I never hear him on a job?"

TRADITION





PROGRESS



Studies in Structural Arc Welding

Plates 1 to 17, inclusive, are available to Architects, Structural Engineers and Steel Fabricators. They will be delivered gratis upon request to Dept. No. 30-8.

"No, Pop —

You never will. He operates on the Quiet. Wherever there's a quiet job of steel erection going on, you'll find a one-piece steel structure in the making . . . stronger, stiffer for its weight than the noisy jobs you've specified.

Why punch steel beams full of holes and their supporting columns likewise just to fill 'em up again accompanied by a deafening racket only equaled by the client's neighbors' howls.

When your brain children start to grow up let them be seen but not heard."

The Lincoln Electric Co., Dept. No., 30-8, Cleveland, O.

"Stable Arc"

LINCOLN WELDER

W-153





Heavy tubular frame strongly welded

WELDED BRONZE DOORS for COMMERCIAL BUILDINGS

The rails and stiles of this door consist of heavy tubular members, the joints of which are strongly welded. The inner edge of the frame is trimmed with shapely mouldings used for securing the center panel. With necessary hardware furnished and applied the complete ensemble presents a unit appropriate for use in the finest commercial buildings.

Send for complete description and F. S. details.

THE Kawneer COMPANY
Niles, Mich.
Subsidiary: Berkeley, Calif.

ALSO SHOWER STALLS AND SHOW CASE DOORS

CLASSIFIED DIRECTORY OF ADVERTISERS

Alphabetical Index to Advertisers, Page 182

After reviewing advertisements in this issue—use Sweet's Architectural Catalogues for 1930 for catalogue and specification information on the products of the most of the manufacturers.

Acid Proof Chemical Stoneware
Knight, Maurice A.

Acoustical Installation—Armstrong Cork & Insulation Co.
Guastavino, R., Co.

Acoustics
Armstrong Cork & Insulation Co.
Boston Acoustical Eng. Division of Housing Company
Johns-Manville Corp.

Air Compressors
Westinghouse Traction Brake Co.

Air Conditioner
American Blower Co.
Buffalo Forge Co.
Doherty-Brehm Co.
Lewis Corporation

Air Washer
Buffalo Forge Co.

Aluminum
Aluminum Co. of America

Anchors—Concrete
Bulldog Floor Clip Co.

Arc Welding—Lincoln Electric Co.

Architectural Supplies
Higgins, Chas. M., & Co.

Artstone—Rackle, George, & Sons Co.

Asbestos—Johns-Manville Corporation

Balances, Sash—See Sash Balances

Basement, Windows—Steel
Detroit Steel Products Co.
Truscon Steel Company

Bathroom Accessories
Parker Charles Company

Beads—Corner Metal
Milcor Steel Co.
Truscon Steel Company
Wheeling Corrugating Co.

Beams, Angles, Channels, Etc.
Bethlehem Steel Co.
Carnegie Steel Company
Jones & Laughlin Steel Corp.

Belts—Dayton Rubber Mfg. Co.

Blackboards—Weber Costello Co.

Boiler and Pipe Covering
Johns-Manville Corporation
Ric-wiL Company

Boilers—American Gas Products Co.
American Radiator Co.
Bryan Steam Corp.
Dahlquist Mfg. Co.
Heggie-Simplex Boiler Co.
Pierce, Butler & Pierce Mfg. Co.
Smith, H. B., Company, The, Inc.
Titusville Iron Work Co.
Wood Gar Engineering Co.

Bolts—Door—Corbin, P. & F.

Brass and Bronze
See "Ornamental Metal"

Brass and Copper
See "Copper and Brass"

Brick—Finzer Bros. Clay Co.

Bridges—Steel—American Bridge Co.
Bethlehem Steel Co.

Builders—Stone & Webster, Inc.

Buildings—Steel
Carnegie Steel Company
Nat'l Assoc. of Flat Rolled Steel Mfrs.

Butts—Corbin, P. & F.
Stanley Works

Cabinet Work—Hyde-Murphy Co.

Cabinets—Kitchen
Olean Metal Cabinet Works, Inc.

Cabinets—Medicine—Parker Charles Company

Cabinets—Toilet Paper
Victoria Paper Mills Co.

Casement Operators—Rixson, Oscar C., Company

Casements—Bayley, William, Co.
Crittall Casement Window Co.
Detroit Steel Products Co.
International Casement Co.
Mesker Bros. Iron Company
Truscon Steel Company

Cast Stone
Cast Stone Institute

Cellar Drainer
Penberthy Injector Co.

Cement—Louisville Cement Company
Medusa Portland Cement Co.
Portland Cement Association
Universal Atlas Cement Co.

Cement White
Medusa Portland Cement Co.

Chain Sash—American Chain Co., Inc.
Detroit Steel Products Co.
Smith & Egge Mfg. Co.

Chairs—Marble, B. L., Chair Co.

Channels—Carnegie Steel Co.
Concrete Engineering Co.
Jones & Laughlin Steel Corp.

Church Memorials
American Seating Company

Clamps—Lock Joint
Hyde-Murphy Co.

Clay Vitrified
Clay Products Association

Cleaning Systems
Spencer Turbine Co.

Clocks, Electric
Landis Eng. & Mfg. Co.

Columns, Porches, Etc.
Hartmann-Sanders Co.
Union Metal Mfg. Co.

Compressors—Air
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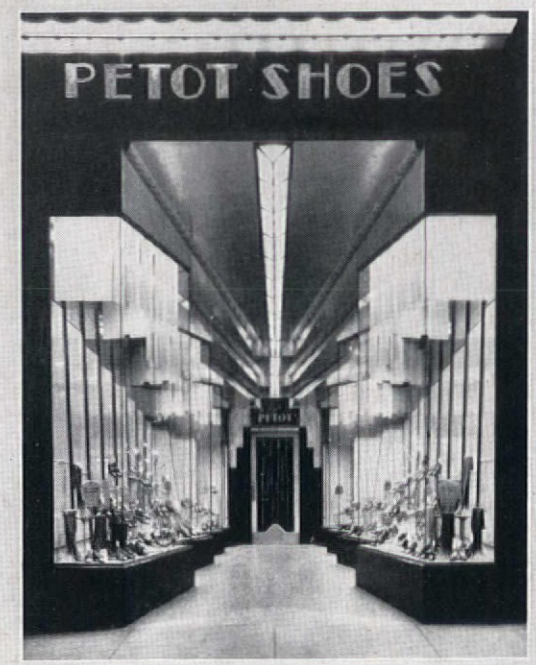
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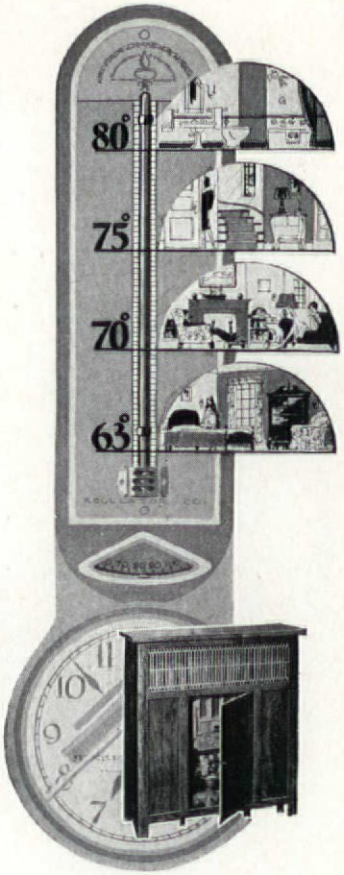
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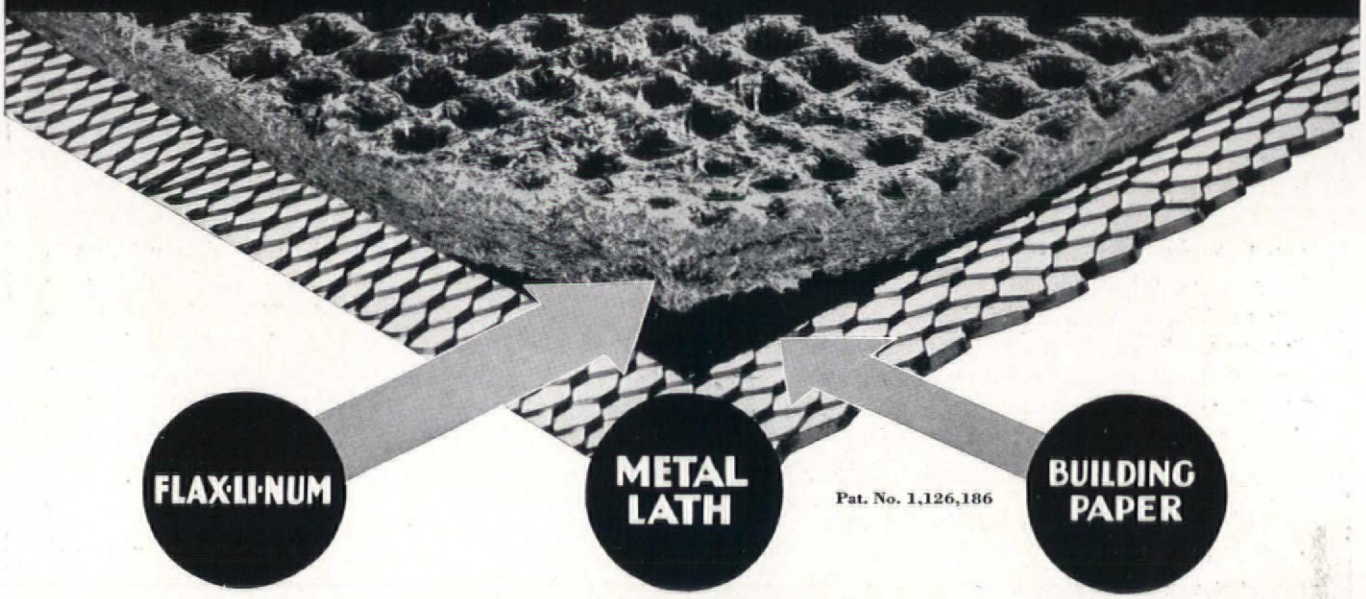
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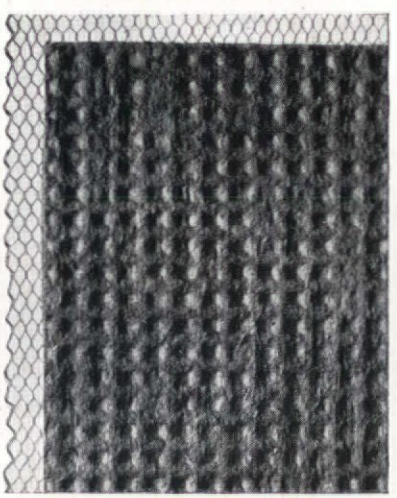


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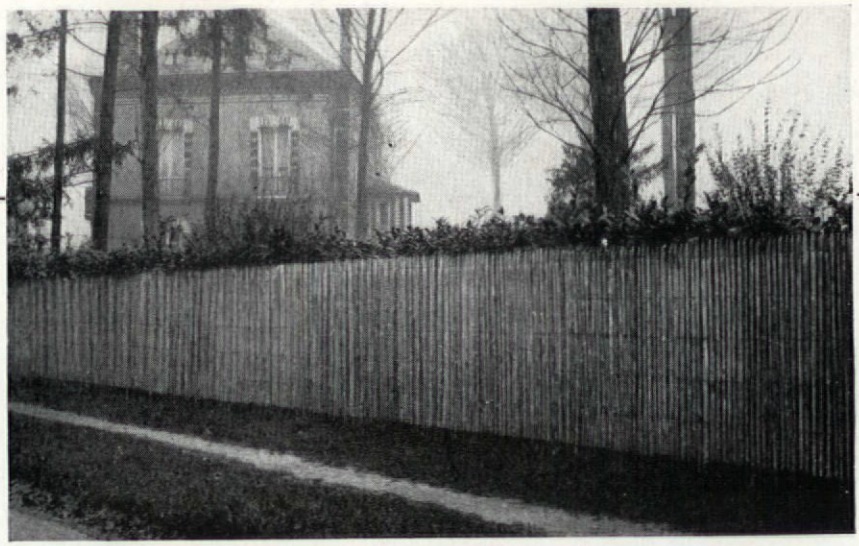
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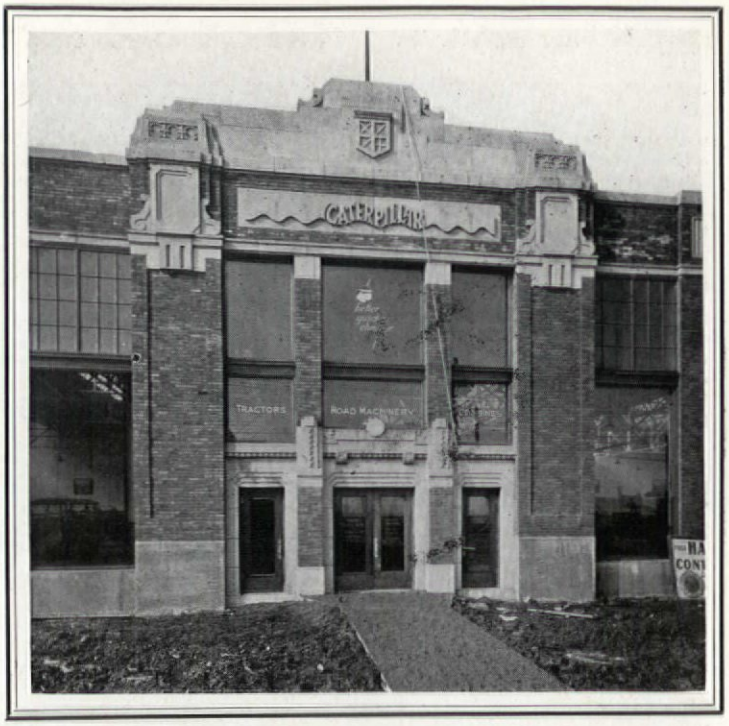
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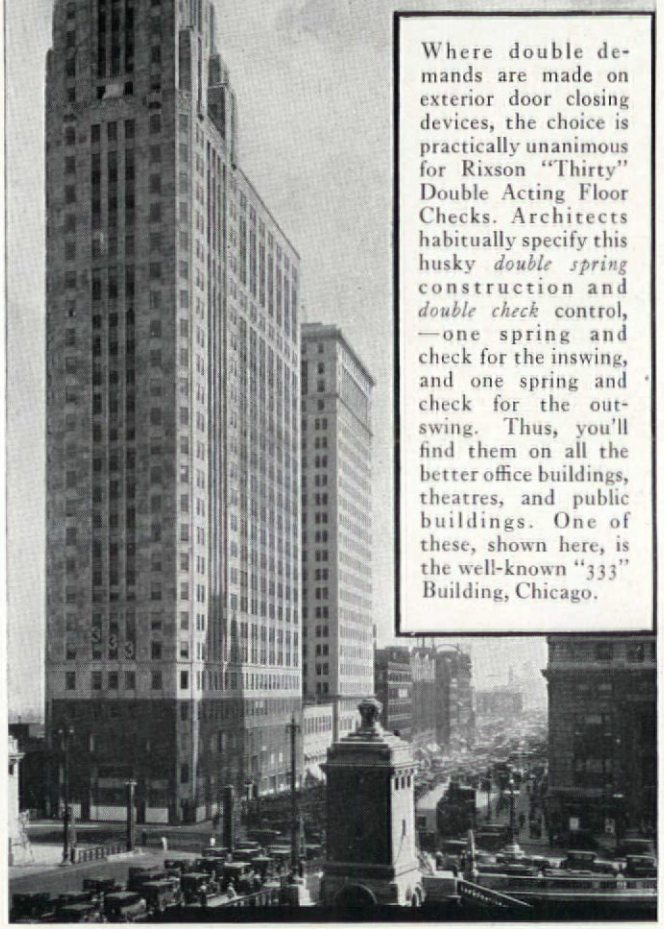
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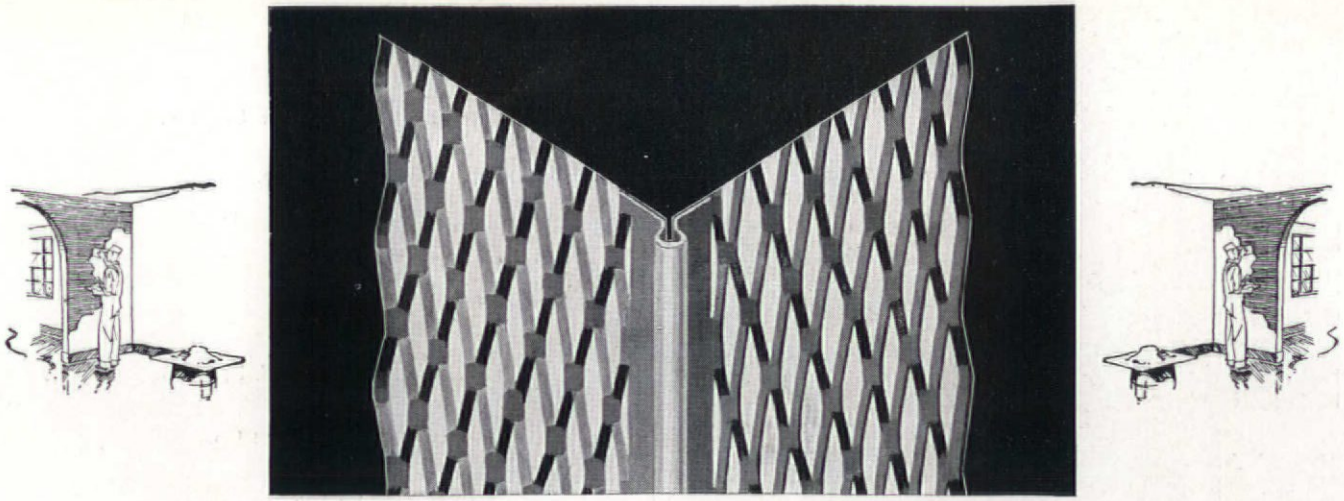
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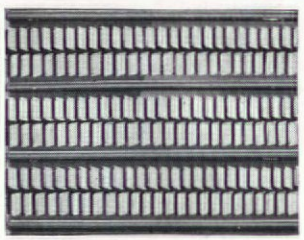
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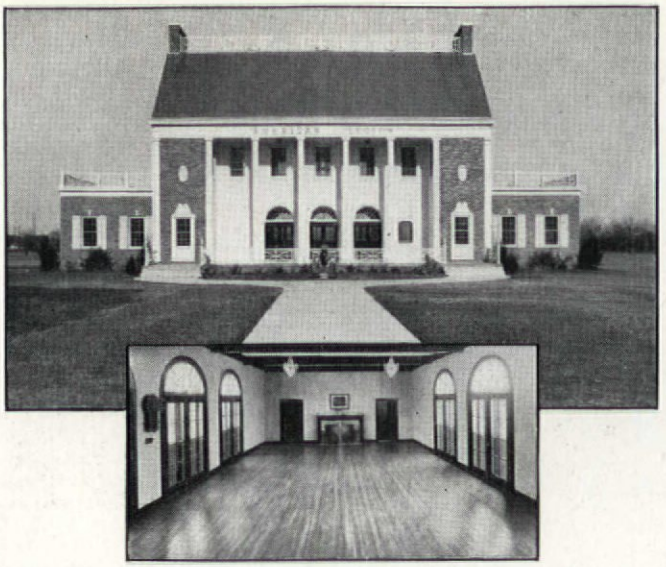
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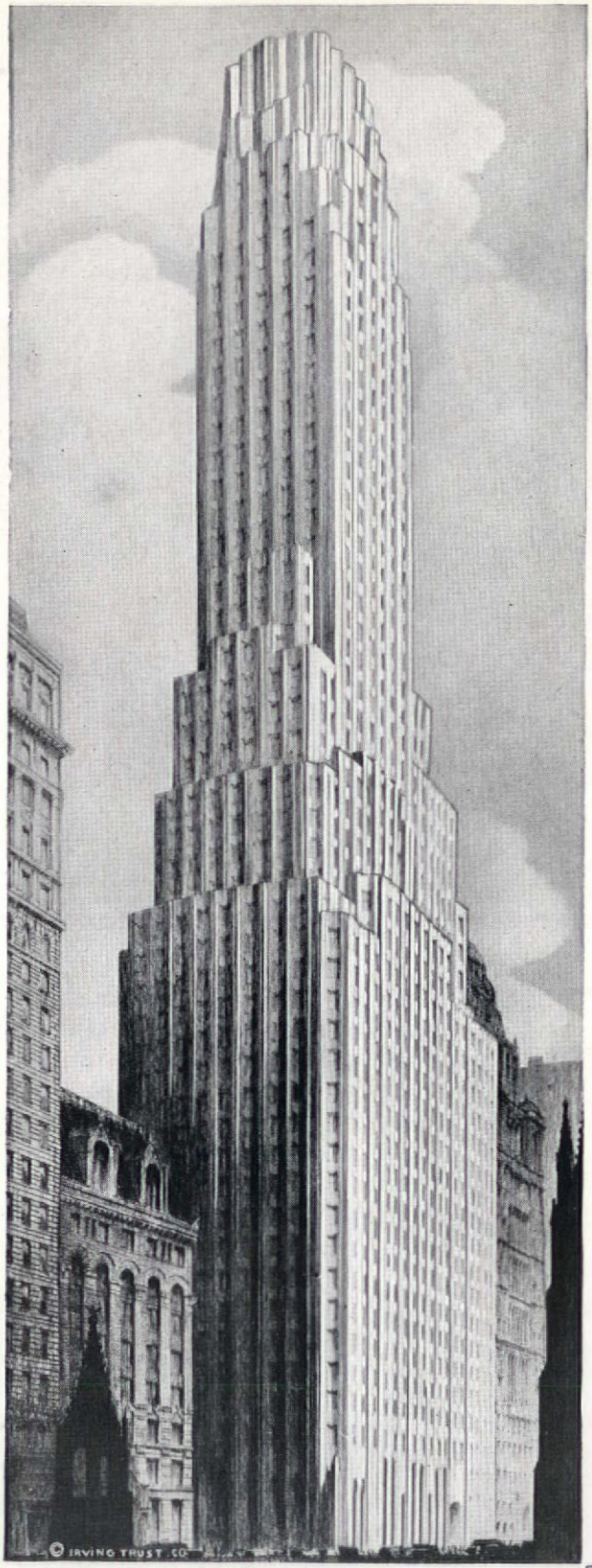
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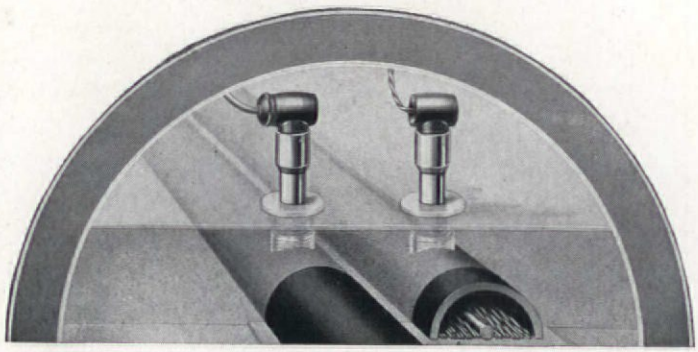
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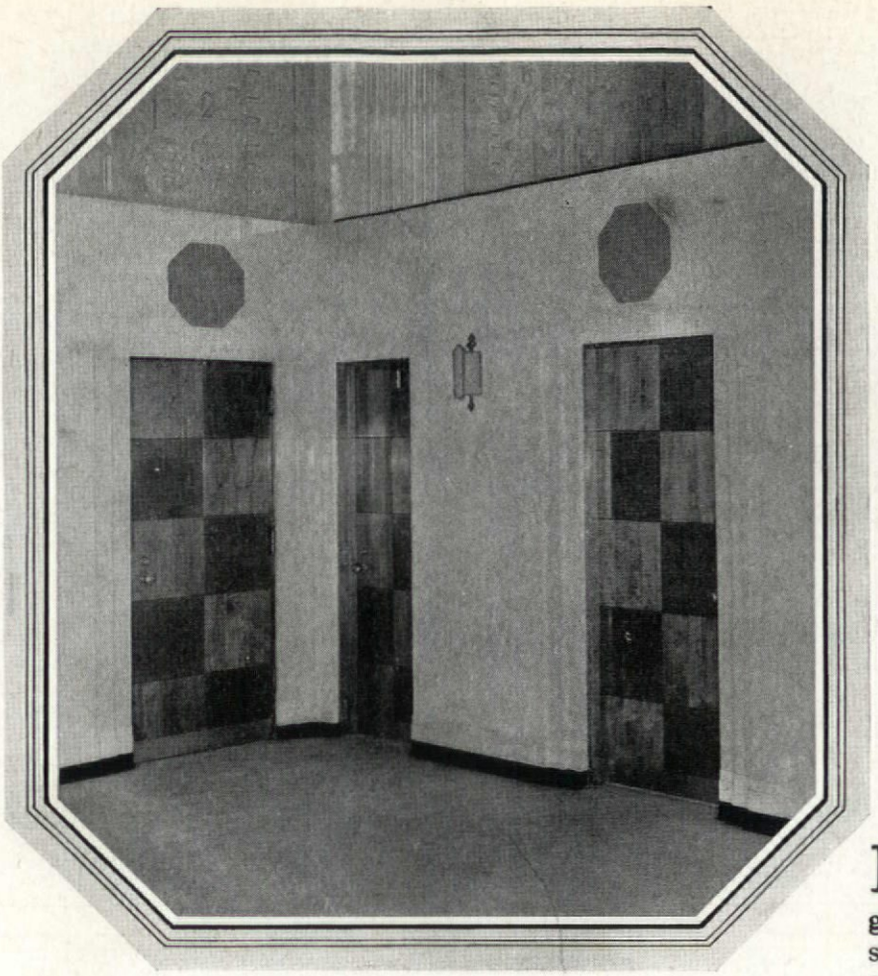
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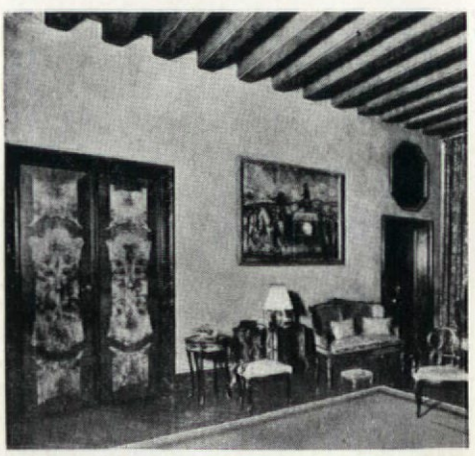
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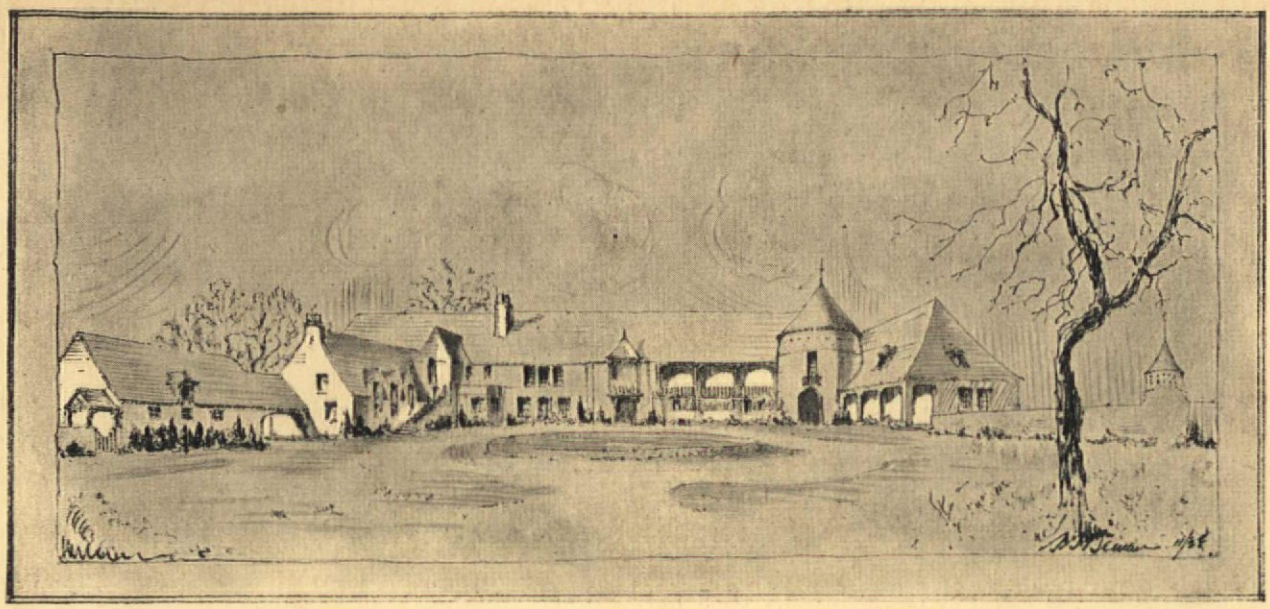
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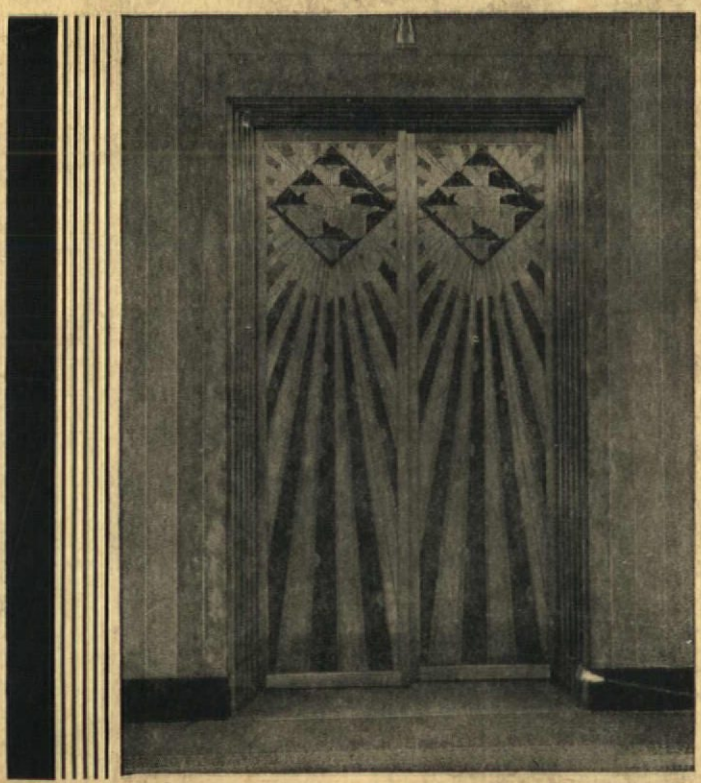
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